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Oats Imports, the U.S. Market, and Government Programs

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ABSTRACT

The United States became a net importer of oats during 1982-86, with imports ranging from 4 to 34 million bushels, mostly from Canada, Sweden, and Finland. As a result of increased oats imports in crop years 1983-86, domestic supply increased modestly, producer prices declined slightly, and domestic feed use rose somewhat. Net Government outlays were estimated to increase by $0.4-$4.5 million annually. Additional imports did not significantly affect the Government program objectives for oats. U.S. harvested acreage of oats has shifted somewhat to barley because of higher net returns caused in part by Government programs. To the extent that program provisions have provided disincentives for oats production, oats imports have served as a counterbalancing force.

Keywords: U.S. oats market, Government oats programs, world oats production and trade, oats imports.

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SUMMARY

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The United States produces about 16 percent of the world's oats harvested as grain, a share that has steadily declined since the 35-percent share it held in the early fifties. U.S. oats production for grain has declined from a high of 1.5 billion bushels in 1955 to 0.4 billion in 1986. Over half of the oats produced are consumed on farms where grown. About 85 percent of total disappearance goes to feed use. Food and seed use claim the bulk of the residual share about equally. Exports are an insignificant share of disappearance.

The United States became a net importer of oats during 1982-86, with imports ranging from 4-34 million bushels, mostly from Canada, Sweden, and Finland. The imports were competitively priced, due in part to favorable transport rates, foreign subsidies, a strong U.S. dollar, and generally strong U.S. prices, and the imported oats were of superior quality. For 1984-85, domestic oats production seemed adequate to handle domestic consumption, but world economic conditions permitted foreign oats to be imported into the United States at competitive prices. However, oats were imported to supplement a short domestic supply during the 1983 and 1986 crop years.

The world market for oats may be less dependable than for other grains. Trade has been variable but low in volume. World oats trade averaged 1.4 million metric tons annually during 1960-85 with a range of 1-2 million metric tons, about 2-4 percent of production. Most countries produce oats for the domestic market and export oats only when production exceeds domestic use. The extent of trade also depends on the availability of other feed grains in the world market.

Market effects of increased oats imports during crop years 1983-86 were an estimated modest increase in domestic supply, a slight decline in producer prices, and a modest gain in domestic feed use. Supply rose from 28 million bushels to 49 million bushels yearly, an annual increase of 4-9 percent. Domestic feed use rose 9-26 million bushels, an annual increase of 2-6 percent. Annual producer prices declined slightly, 3-6 cents per bushel.

The objectives of Government price and income support programs for oats have generally been met over time. However, participation in the programs by oats producers has not been great (14-37 percent during 1982-86) for numerous reasons such as large onfarm use and lack of economic incentives. Because of increased oats imports during 1983-86, net Government outlays were estimated to have risen by $0.4-$4.5 million annually.

Government program objectives were not significantly affected by the increased imports during 1983-86. Prices and income were stabilized and received minor support, although their levels declined slightly. Increased imports provided larger supplies and consequently enhanced total consumption of oats. Farm marketing patterns did not change substantially because prices changed only slightly.

Although Government programs for oats provided minor support to prices and income, the effects of the common oats and barley acreage base since 1982 are important. Recently, acreage has shifted from oats to barley because of higher net returns caused, in part, by Government programs. As the domestic supply of oats declines, producer prices have strengthened, making imports more attractive. To the extent that program provisions have provided disincentives for oats production, oats imports have served as a counterbalancing force to some degree.

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INTRODUCTION

U.S. oats imports increased from 3.9 million bushels for 1982 to an estimated 30 million bushels in 1983, a rise of nearly sevenfold, and have remained at about that level. 1/ Oats imports were generally less than 1 percent of supply during 1958-82, ranging from 0.9 million bushels to 5.3 million bushels. Purchases of foreign oats in 1983-85 amounted to 27-34 million bushels, about 4-5 percent of supply. The United States became (and has since remained) a net importer of oats during 1982, the first time since the early fifties; oats imports amounted to 79.4 million bushels (5 percent of supply) in 1953.

Legislators and their constituents have become concerned about the impact of oats imports, raising such questions as: How is it economically feasible to import oats when the United States has excess production capacity? How will these imports affect Government programs and their costs? In response to this concern, the Food Security Act (FSA) of 1985 mandated that the Secretary of Agriculture conduct "a study of the impact of domestic farm programs of the increased importation of oats into the United States" (16). 2/ Although this mandate reflects concern over the effects of imports on domestic farm programs, the primary concern appears to be the effects of oats imports on domestic production, consumption, and prices, and how these factors affect the achievement of Government program objectives. This report details the USDA study of these issues in response to the FSA of 1985 mandate. Specific objectives of this study are to:

- o provide an overview of supply, demand, and price within the U.S. oats industry;
- o provide a background of the world oats trade and U.S. imports;
- o provide an overview of the Government program for oats; and

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1/ All years are crop years, June 1 through May 31, unless otherwise stated.

2/ Underscored numbers in parentheses refer to literature cited in the References at the end of this report.

- o assess the impact of increased oats imports on the oats market and Government program for oats.

The U.S. oats industry has been in a state of transition since the midfifties when oats acreage and production began to decline. Despite a 122-percent increase in feed grain production during 1950-85, the production of oats harvested as grain declined by more than 80 percent. Oats harvested as grain was the 3rd most valuable crop in 1950, but dropped to 16th by 1985. In the midfifties, oats ranked fourth among the acres planted to principal crops, about 12 percent of the total, but as of 1985 they had dropped to eighth, 4 percent of the total. Based on production levels during 1983-86, current domestic production may be becoming inadequate to meet consumption levels.

Oats are included in Government programs designed to stabilize, support, and protect farm income and prices; assist in maintaining balanced and adequate supplies of food, feed, and fiber; and aid in the orderly marketing of farm commodities. The oats program has evolved over time and has helped the oats market adjust to supply-demand imbalances.

Imports of oats could lower domestic prices, raise stock levels, substitute foreign for U.S. oats in domestic consumption, and thus increase the cost of the domestic oats program. If high levels of imports persist, they could increasingly replace domestic production, despite overall excess production capacity in the United States. On the other hand, if the domestic oats program or programs for other crops implicitly provide disincentives to oats producers, imports could help mitigate these disincentives and provide users with necessary supplies.

ANALYTICAL PROCEDURE

This study is composed of four sections. The first section, an overview of the U.S. oats industry, 1950-86, provides an information base on production, use, and price, along with a comparison of net returns per acre for oats and several competing crops.

The second section, world oats trade and the U.S. role, describes world oats production and consumption in major countries, 1960-85, and identifies the volume of world oats trade and major trading countries during that time.

The third section, an overview of the domestic farm program for oats, traces the evolution of this program, identifies current policy parameters, assesses the attainment of program objectives, and examines program activity and cost.

The fourth section analyzes the 1983-86 effects of increased oats imports upon the U.S. oats market and the Government oats program. Market impacts of oats imports on supply, use, and price will first be analyzed, followed by effects on Government program costs. This section also examines the effects of oats imports on the objectives of the overall Government oats program. Impacts of increased imports will be restricted to the farm program for oats rather than all domestic farm programs because corn, the major feed grain, heavily influences the price of oats rather than the opposite.

The analysis of this section focuses on 1983-86, a time when U.S. oats imports were at relatively high levels. During this period, oats imports were 28-34 million bushels per year, considerably above the 1-4 million bushels of the late 1950's through the early 1980's.

We developed and analyzed two scenarios to assess the effects of increased oats imports on the domestic price support program. The effects were assessed by comparing actual oats imports, production, use, price, and Government outlays for 1983-86 (increased import scenario) with a base scenario (app. table 3). The base scenario (historical average) assumes that oats imports remain a constant 2 million bushels a year, the average level for 1978-82, and estimates production, use, price, and Government outlays for 1983-86 (app. table 4).

Production, use, price, and selected Government outlay variables were estimated for the base scenario based on assumptions, elasticities, and judgment of economists in the Agricultural Stabilization and Conservation Service (ASCS) and the Economic Research Service (ERS). We used a reduced-form price equation to compute price effects for this analysis. This equation was based on annual data, 1977-86, with the oats farm price expressed as a function of a constant, corn farm price, and ending stocks of oats. Demand elasticities used for this analysis were as follows: feed, -1.1; food, -0.08; and seed, -0.05. Secondary data were used and obtained from various USDA sources.

Government program assumptions were similar for both scenarios. The planted and harvested acres, yield, and production figures of the base scenario for the 1983 and 1984 crop years were unchanged from the increased (actual) import scenario. For 1983, producers would have been unaware of import changes at planting time. For the 1984 crop, participant net returns (revenue above variable costs) compared with that of nonparticipants was about the same as the increased (actual) import scenario. For the 1985 and 1986 crops, program participation was lowered slightly, and planted and harvested acres and production were raised slightly in the base scenario because of marginally higher prices. Average yields were also lowered slightly for the base scenario because of increased harvested acres.

Changes in selected variables were determined and compared between the two scenarios. These variables are production, use, price, stocks, Government outlays as reflected by loan activity, direct payments, inventory management costs of the Commodity Credit Corporation (CCC), and selected program objectives.

OVERVIEW OF THE U.S. OATS INDUSTRY

The United States produces about 16 percent of the world's oats harvested as grain, a share that has steadily declined since the 35-percent share it held in the early fifties. Several factors are at least partially responsible for the decline in the importance of oats. Oats are less profitable than other cash crops such as soybeans, corn, wheat, and recently, barley. Use of oats as both a feed ingredient and within crop rotations has declined. Farms have become increasingly specialized for crops, livestock, and poultry (10).

Oats were a major U.S. crop, especially in colonial times when oats acreage was exceeded only by corn and wheat. Oats were popular on farms because the crop provided feed and bedding for horses, mules, and other livestock. Oats have historically been a multipurpose crop planted for numerous reasons other than as a cash grain crop. Nongrain uses include straw, pasture, forage, conservation, and as a companion crop with the establishment of a legume crop, such as alfalfa.

Supply

The U.S. oats supply from 1950-86 ranged from a high of 1.9 billion bushels in 1955 to a low of 0.6 billion bushels in 1986 (table 1). Oats production is concentrated in the North Central States. Carryover stocks of oats, while generally small in relation to production, are an important supply variable because of their shortrun effects on price and program cost. Most stocks (working inventories and excess supplies) are stored on the farm where oats are grown, with the remaining stocks held by elevators, processors, and manufacturers.

Imported oats have been a relatively small percentage of total supply over the past 37 years, ranging from less than 1 percent to 5 percent. In 1953, imports peaked at 79 million bushels or 5 percent of supply. Again in 1984 they equaled 5 percent of supply at 34 million bushels, and are estimated at 5 percent for 1986.

Oat grain production declined from a high of 1.5 billion bushels in 1955 to a low of 0.4 billion bushels in 1986. In each year since 1962, production has been less than 1 billion bushels, and has averaged 488 million bushels per year during the eighties.

Acreage

From 1950 to 1986, cropland planted with oats declined by an average 987,100 acres per year (fig. 1). Planted acres reached a plateau in the midfifties, averaging about 44 million acres, then declined sharply to a low of 12.4 million acres in 1984. Acres planted to sorghum and barley also trended downward during this period. In contrast, acres planted to wheat and soybeans rose by 449,000 and 1.7 million acres per year. Corn acreage was fairly constant from 1950 to 1960, but increased significantly from 1961 to 1986. Oats planted for harvest competes with barley, wheat, soybeans, and sunflowers for available acreage.

Oats are frequently used as a conservation crop. When corn and wheat acreage is idled as a supply control measure, oats acreage tends to rise, such as in 1961, 1970, 1983, and 1986.

Oats acreage harvested for grain has recently been 7-10 million acres, down from about 40 million acres in the midfifties. Many producers who continue to grow oats are also involved in livestock production. During 1950-86, the acreage harvested for grain declined from 87 percent to 45 percent of total acreage planted (table 2). Although cropland acres planted to oats for purposes other than grain has declined from 5.7 to 3.7 million acres, this decline is not as great as that harvested for grain. Other uses for oats, such as forage, pasture, conservation, or a companion crop, are gaining in relation to the use of oats for grain.

Table 1--Supply of U.S. oats by major category

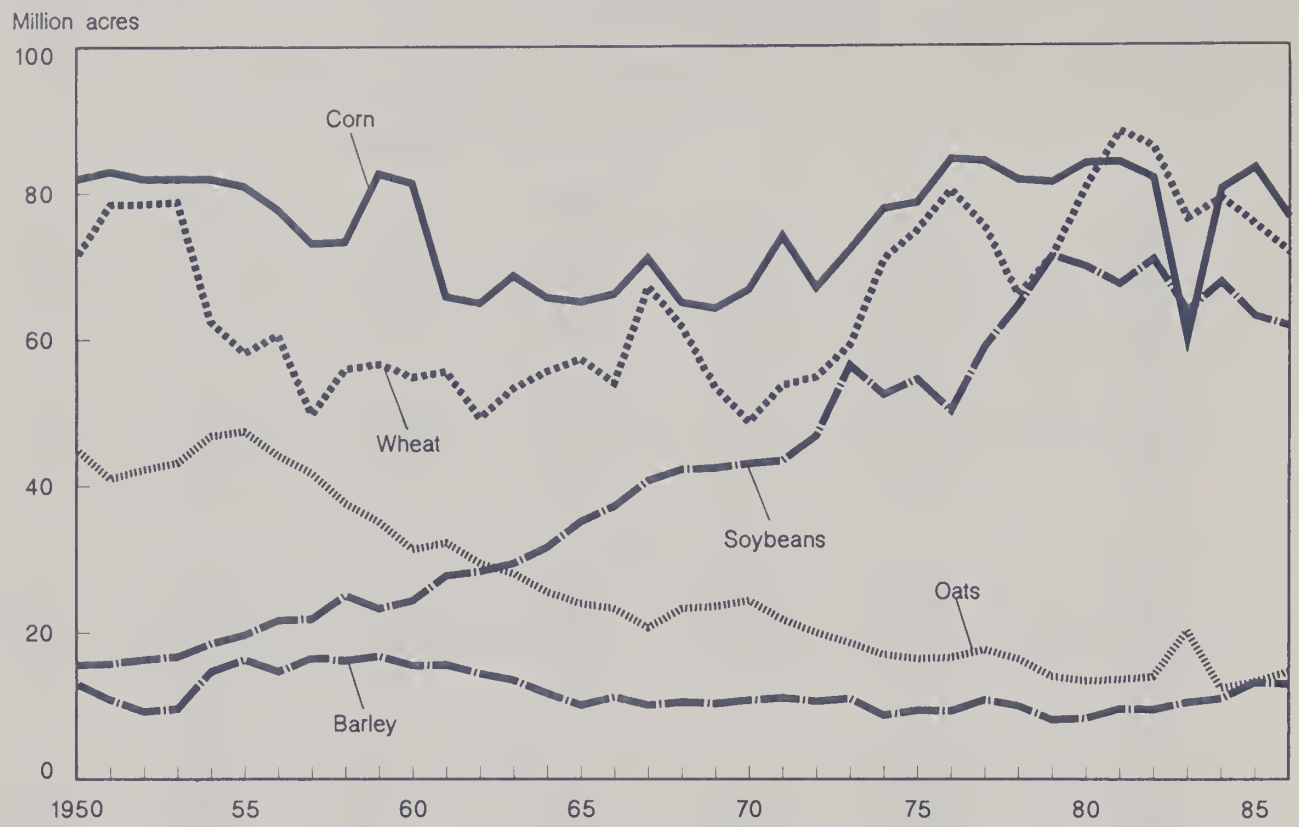
Crop year 1/	Beginning stocks			Imports	Production	Total supply
	Onfarm	Off farm	Total			
	Million bushels					
1950	249.9	30.2	280.1	28.2	1,369.2	1,677.5
1951	323.3	37.9	361.2	55.7	1,277.6	1,694.5
1952	301.1	39.8	340.9	74.6	1,217.4	1,632.8
1953	268.2	39.5	307.7	79.4	1,153.2	1,540.3
1954	250.7	34.1	284.8	24.2	1,409.6	1,718.6
1955	306.1	68.2	374.3	3.7	1,496.0	1,874.0
1956	341.5	79.0	420.5	14.6	1,151.4	1,586.5
1957	240.8	51.3	292.1	24.7	1,289.9	1,606.7
1958	338.1	53.1	391.2	5.4	1,401.4	1,798.0
1959	371.8	73.9	445.7	2.0	1,050.1	1,497.8
1960	275.7	46.0	321.7	1.4	1,153.3	1,476.4
1961	323.8	62.2	386.0	1.2	1,010.3	1,397.5
1962	280.8	52.7	333.5	4.0	1,012.2	1,349.7
1963	277.7	47.5	325.2	4.1	965.5	1,294.8
1964	297.1	66.1	363.2	3.2	852.3	1,218.7
1965	258.8	65.8	324.6	4.1	929.6	1,258.3
1966	297.3	80.5	377.9	3.8	803.3	1,185.0
1967	240.6	76.8	317.4	3.3	793.8	1,114.5
1968	245.2	70.8	316.0	2.1	950.7	1,268.8
1969	322.0	102.4	424.4	2.0	965.9	1,392.3
1970	402.4	145.3	547.7	1.5	915.2	1,464.4
1971	369.2	201.2	570.4	3.1	878.1	1,451.6
1972	384.2	212.3	596.5	3.3	690.6	1,290.4
1973	272.3	191.1	463.4	.2	659.1	1,122.7
1974	189.5	118.0	307.5	.3	600.7	908.5
1975	143.4	80.6	224.0	.7	639.0	863.7
1976	158.5	46.3	204.8	1.4	540.0	746.6
1977	128.7	35.6	164.3	2.2	752.8	919.3
1978	259.5	53.6	313.1	.7	581.7	895.5
1979	229.3	50.7	280.0	.9	526.7	807.6
1980	198.3	38.1	236.4	1.3	458.8	696.5
1981	148.9	28.1	177.0	1.6	509.5	688.1
1982	127.1	24.8	151.9	3.9	592.6	748.4
1983	181.2	38.6	219.8	30.1	477.0	726.9
1984	151.3	29.8	181.1	34.0	473.7	688.8
1985	146.5	33.4	179.9	27.5	520.8	728.2
1986 2/	146.9	36.6	183.5	30.0	384.5	596.8

1/ Reflects June through May crop year.

2/ Preliminary. Based on World Agricultural Supply and Demand Estimates as of Jan. 15, 1987.

Sources: (25, 26).

Figure 1
Acres planted: Corn, barley, oats, wheat, and soybeans



The decline in oats acreage harvested for grain is due, in part, to its decline in use as a feed grain. The Government program for oats was recently cited as a reason for the decline in harvested acreage. For example, since the Food and Agricultural Act of 1981, participating oats producers have been eligible to receive deficiency payments; however, as a condition of eligibility they generally have been subject to the acreage reduction requirements of the feed grain program. Furthermore, established farm oats acreage base and barley acreage base were combined into a common oats/barley acreage base. On this base, a producer can plant any combination of oats and barley on the permitted acreage. The result has been to reduce oats acres harvested from 10.3 million in 1982 to 6.9 million in 1986 and to raise barley acreage from 9 million in 1982 to 12 million in 1986 (fig. 2). This shift in acreage is probably due to the higher returns of barley production resulting, in part, from Government programs.

The five North Central States accounting for about 63 percent of oats grain production (Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin) have accounted for 73 percent of the 3.4-million-acre decline in U.S. oats acres harvested for grain. Most of this decline was offset by an increase in set-aside acres or acres harvested of soybeans or barley (app. table 1).

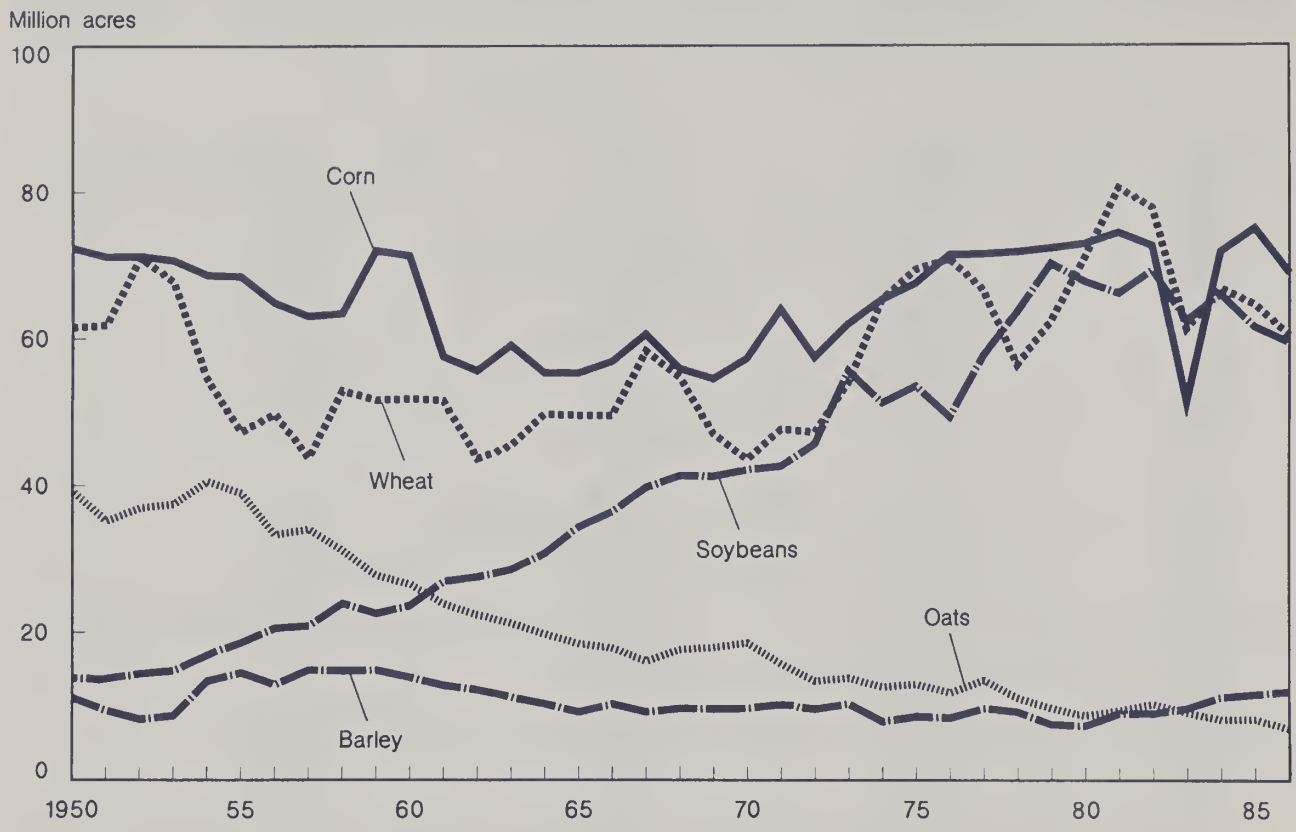
The estimated elasticity of harvested oats acreage with respect to oats price is 0.16 (2, 6, 7, 9, 29). This means that a 1-percent increase (decrease) in oats prices received by farmers is expected to result in a 0.16-percent increase (decrease) in acreage harvested. Although price influences the number of acres harvested, oats are generally less sensitive to price changes than feed grains, wheat, soybeans, and cotton.

Table 2--U.S oats acreage

Crop year	Planted for all purposes	Harvested for grain	Used for other purposes	Diverted
		1,000 acres		
1950	45,044	39,306	5,738	0
1951	41,015	35,233	5,782	0
1952	42,341	37,012	5,329	0
1953	43,220	37,536	5,684	0
1954	46,898	40,551	6,347	0
1955	47,494	39,027	8,467	0
1956	44,205	33,333	10,872	0
1957	41,840	34,065	7,775	0
1958	37,699	31,247	6,452	0
1959	35,064	27,758	7,306	0
1960	31,419	26,588	4,831	0
1961	32,314	23,886	8,428	0
1962	29,500	22,377	7,123	0
1963	28,054	21,308	6,746	0
1964	25,634	19,759	5,875	0
1965	24,046	18,522	5,524	100
1966	23,343	17,877	5,466	0
1967	20,719	16,110	4,609	0
1968	23,342	17,708	5,634	0
1969	23,561	17,971	5,590	0
1970	24,410	18,594	5,831	0
1971	21,831	15,705	6,184	0
1972	19,990	13,410	6,653	0
1973	18,605	13,770	4,835	0
1974	17,013	12,608	4,405	0
1975	16,434	13,038	3,396	0
1976	16,620	11,834	4,786	0
1977	17,732	13,485	4,247	0
1978	16,407	11,126	5,281	0
1979	13,960	9,682	4,278	0
1980	13,381	8,657	4,725	0
1981	13,632	9,407	4,225	0
1982	13,951	10,258	3,693	100
1983	20,289	9,072	11,217	300
1984	12,414	8,163	4,251	100
1985	13,255	8,177	5,078	100
1986	14,708	6,870	7,838	700

Source: (28).

Figure 2
Acres harvested: Corn, barley, oats, wheat, and soybeans



Yield

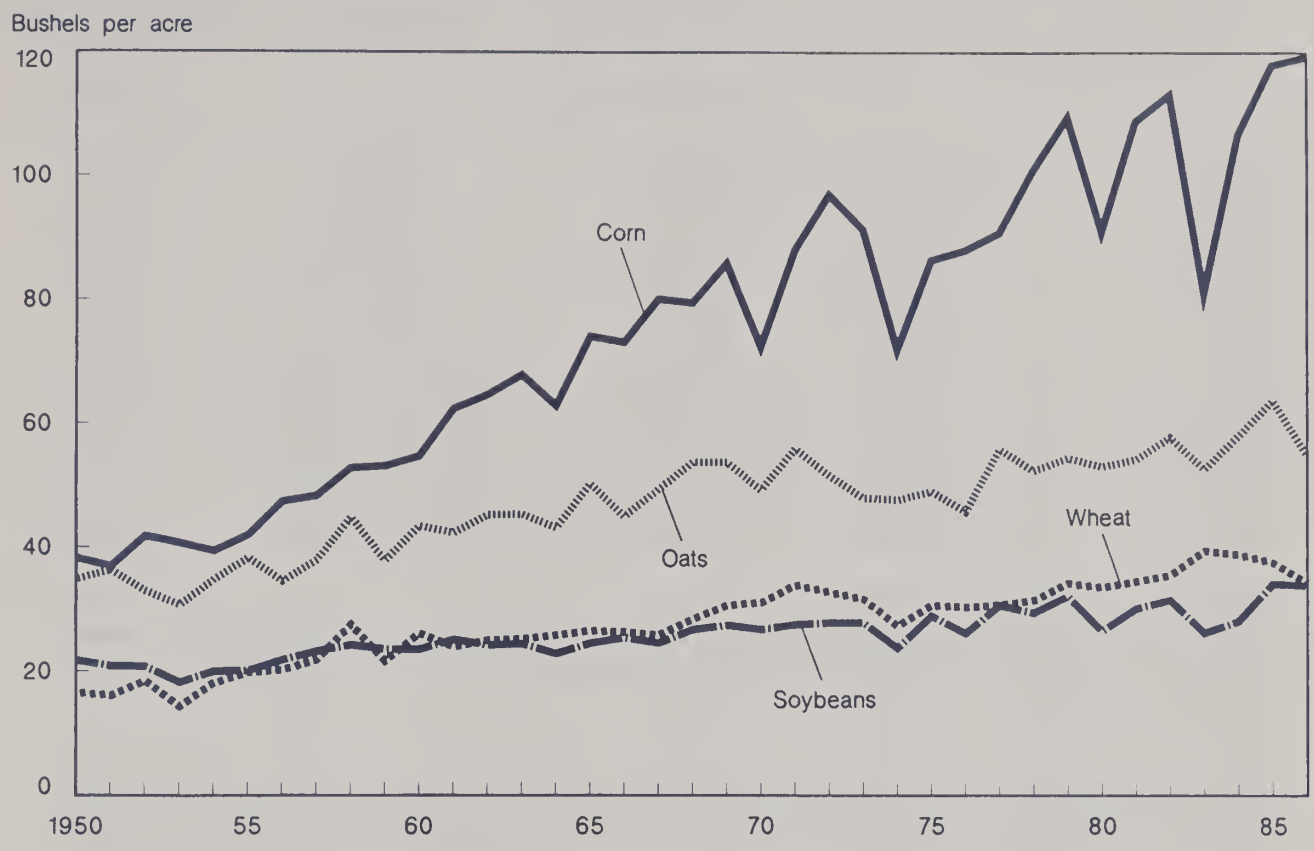
Oats yields trended upward during 1950-85 by 0.7 bushels per acre per year (fig. 3) (10). Oats yields per acre were 34.8 bushels in 1950, rising to 63.7 bushels by 1985. State oats yields in 1985 ranged from a low of 33 bushels per acre in Montana to a high of 92 bushels per acre in Oregon. The trend in oats yield gains ranked fourth among the feed grains, wheat, and soybeans. Yields for corn, sorghum, and barley rose by 2.2, 1.2, and 0.8 bushels per year. Yields trended upward for wheat and soybeans by 0.6 and 0.3 bushels per year.

Oats yields have been fairly unresponsive to price. Estimates of yield elasticities with respect to oats price range from 0.05 to 0.15 percent (2, 6, 7, 9, 29).

Production Elasticities

An estimate of oats production elasticities with respect to oats price was computed by summing elasticities for acres harvested and for yield, assuming a change in oats acreage has no effect on yield. The production elasticity of oats is fairly low. Production of oats is estimated to change by 0.21-0.31 percent for a 1-percent change in price received by farmers. Thus, changes in total production appear more responsive to factors other than price, such as program parameters.

Figure 3
Yield per acre: Corn, oats, wheat, and soybeans



Demand

The quantity of U.S. oats consumed as grain has steadily declined since the fifties. Most of the reduction in use has been in onfarm feeding. However, about 60 percent of U.S. oats produced are still consumed on the farms where they are produced (table 3). The consumption of oats by off-farm feed sources such as feed manufacturers or livestock and poultry producers has also declined but less severely than the onfarm use. Total feed use of oats accounts for about 85 percent of total disappearance, down from 90 percent in 1950 (table 4). Food use of oats has been a small but steady component of demand. Seed use has declined with the drop in acreage planted. Exports of U.S. oats have been relatively small and highly variable.

Feed

Recent oats feed use has ranged from 400-466 million bushels, less than 50 percent of that fed in the fifties. Oats comprise only about 5 percent of total grains fed.

Oats are most often fed onfarm where grown, and marketed in the form of animal products. This form of marketing can double or triple the market value of oats. More recently, onfarm feeding of oats has declined as farms have become more specialized and animal feeding has become more concentrated in regions outside the traditional oats-producing regions.

Table 3--Production of oats for grain by onfarm and off-farm disposition

Crop year	Production	Used on farms where grown	Sold	
			Quantity	Share of crop
	----- 1,000 bushels -----			Percent
1950-54	1,285,417	962,846	322,571	25.1
1955-59	1,279,543	935,476	342,267	26.7
1960-64	998,722	698,154	300,568	30.1
1965-69	888,646	568,864	319,782	36.0
1970-74	754,211	467,000	287,211	38.1
1975-79	608,076	370,067	230,118	37.8
1980	458,792	297,633	159,906	35.0
1981 1/	509,529	305,717-331,194	178,335-203,812	35.0-40.0
1982 1/	592,630	355,578-385,210	207,421-237,052	35.0-40.0
1983 1/	476,961	286,177-310,025	166,936-190,784	35.0-40.0
1984 1/	473,661	284,197-307,880	165,936-189,464	35.0-40.0
1985 1/	520,800	312,480-338,520	182,280-208,320	35.0-40.0
1986 1/	384,546	230,728-249,955	134,591-153,818	35.0-40.0

1/ Estimates of quantity used on farms discontinued with 1981 crop year. Proportion of crop sold off-farm was estimated to be 35-40 percent.
Source: (17).

Bulky and high in fiber, oats are an excellent conditioning feed for horses and cattle (especially breeding stock) because oats form a loose mass in the stomach. Some grains, such as wheat, pack the stomach and cause digestive disorders. Oats have more protein than corn, but less energy value. Therefore, oats are not as beneficial as corn in finishing or fattening animals, but oats are an excellent starter ration for some animals such as dairy cattle or hogs. Also, oilseed meal and byproduct feeds are more economical sources of protein than oats. As a result, oats are primarily used as a fiber feed.

Oats are principally fed to dairy cattle, horses, mules, replacement layers, and turkeys, with lesser quantities fed to hogs, beef cattle, and sheep. Milk cows, horses, and mules consume about 65 percent of oats fed, compared with 54 percent in 1950 (10). Oats consumption declined with the drop in population of work horses, formerly a major consumer of oats.

Food

Human consumption of oats has been stable, ranging from 32.8 million bushels in 1953 to 45.4 million bushels in 1964 and 1973. However, the relative share has risen over time. For example, the proportion of total disppearance attributed to food use rose from 2.4 percent in 1955 to 8 percent in 1984.

Recently, per capita consumption of oats was slightly above 3 pounds per year, compared with wheat's 115-120 pounds per year. Human consumption of oats has varied from 3 percent of total cereal grain consumption in the early sixties to a current 1 percent (10). This slight decline in relative share was caused by the increased use of corn in the form of corn sweeteners.

Table 4--U.S. oats consumption

Crop year 1/	Food	Seed	Feed and residual	Total domestic	Exports	Total disappearance
			Million bushels			
1950	33.5	100.0	1,176.4	1,309.9	6.4	1,316.3
1951	34.5	105.0	1,209.0	1,348.5	5.1	1,353.6
1952	34.0	108.0	1,178.9	1,320.9	4.2	1,325.1
1953	32.8	118.0	1,101.2	1,252.0	3.6	1,255.6
1954	34.1	119.0	1,178.8	1,331.9	12.4	1,344.3
1955	34.5	111.1	1,277.7	1,423.3	30.2	1,453.5
1956	36.5	105.0	1,124.9	1,266.4	28.1	1,294.5
1957	37.5	95.0	1,056.4	1,188.9	26.6	1,215.5
1958	41.0	88.0	1,193.1	1,322.1	30.2	1,352.3
1959	42.0	79.0	1,009.1	1,130.1	46.0	1,176.1
1960	42.5	82.0	934.0	1,058.5	31.9	1,090.4
1961	43.6	75.0	929.5	1,048.1	15.8	1,063.9
1962	45.2	71.0	878.3	994.5	29.9	1,024.4
1963	45.1	65.2	815.3	925.6	6.0	931.6
1964	45.4	60.5	783.6	889.5	4.6	894.1
1965	45.1	59.8	741.5	846.4	34.0	880.4
1966	43.7	53.4	748.7	845.8	21.8	867.6
1967	40.9	60.0	686.2	787.1	11.4	798.5
1968	40.6	60.1	735.3	836.0	8.4	844.4
1969	41.3	62.2	735.9	839.4	5.2	844.6
1970	40.8	56.1	778.4	875.3	18.7	894.0
1971	42.7	51.5	740.1	834.3	20.8	855.1
1972	45.2	47.9	715.3	808.4	18.6	827.0
1973	45.4	43.7	669.4	758.5	56.7	815.2
1974	43.6	42.4	579.8	665.8	18.7	684.5
1975	44.0	42.7	558.5	645.2	13.7	658.9
1976	42.4	45.9	484.4	572.7	9.6	582.3
1977	42.0	42.5	509.4	593.9	12.3	606.2
1978	41.0	36.1	525.7	602.8	12.7	615.5
1979	40.7	34.6	491.8	567.1	4.1	571.2
1980	41.0	33.0	432.2	506.2	13.3	519.5
1981	41.2	35.4	453.0	529.6	6.6	536.2
1982	41.7	43.3	440.6	525.6	3.0	528.6
1983	40.9	36.6	466.2	543.7	2.1	545.8
1984	41.0	33.2	433.4	507.6	1.3	508.9
1985	44.0	39.0	459.8	542.8	2.2	545.0
1986 2/	----85.4------		400.4	485.8	2.0	487.8

1/ Reflects June through May crop year.
2/ Preliminary.
Sources: (25, 26).

Products within the food category that account for the disappearance of oats include oatmeal, oat flour, natural cereals, meat product extenders, cookies and breads, granolas, and baby food. Oat flour is used in certain cosmetics and cereal applications, and as an antioxidant in food products. Oats are primarily consumed as a breakfast food or snack product.

Recent medical research has shown that certain fibrous plant materials in the diet can lower serum cholesterol concentrations (1). The fibers, however, must be water soluble. Oat bran is water soluble, whereas wheat bran is not. Water-soluble dietary fibers also lower dietary postmeal blood glucose levels in insulin-dependent diabetics. Thus, oat bran or whole oats could play a major role in improving future health through diet.

Seed

Seed use is a relatively small proportion of total disappearance, ranging from 7-9 percent of annual disappearance during 1950-86. Since 1950, total seed use has decreased due to the decline in acres planted. The aggregate seeding rate ranges from 2-3 bushels per acre. Seeding rates differ depending upon the plant's intended use.

Exports

Oats exports have been a low-volume component of total disappearance. Quantities exported have ranged from 1.6 million bushels to 56.7 million bushels during 1950-86. The proportion of total disappearance ranged from 0.3 percent in 1953 and 1985 to 7 percent in 1973 and averaged 1.1 percent of total disppearance over the past decade. Since the midseventies, oats exports have declined.

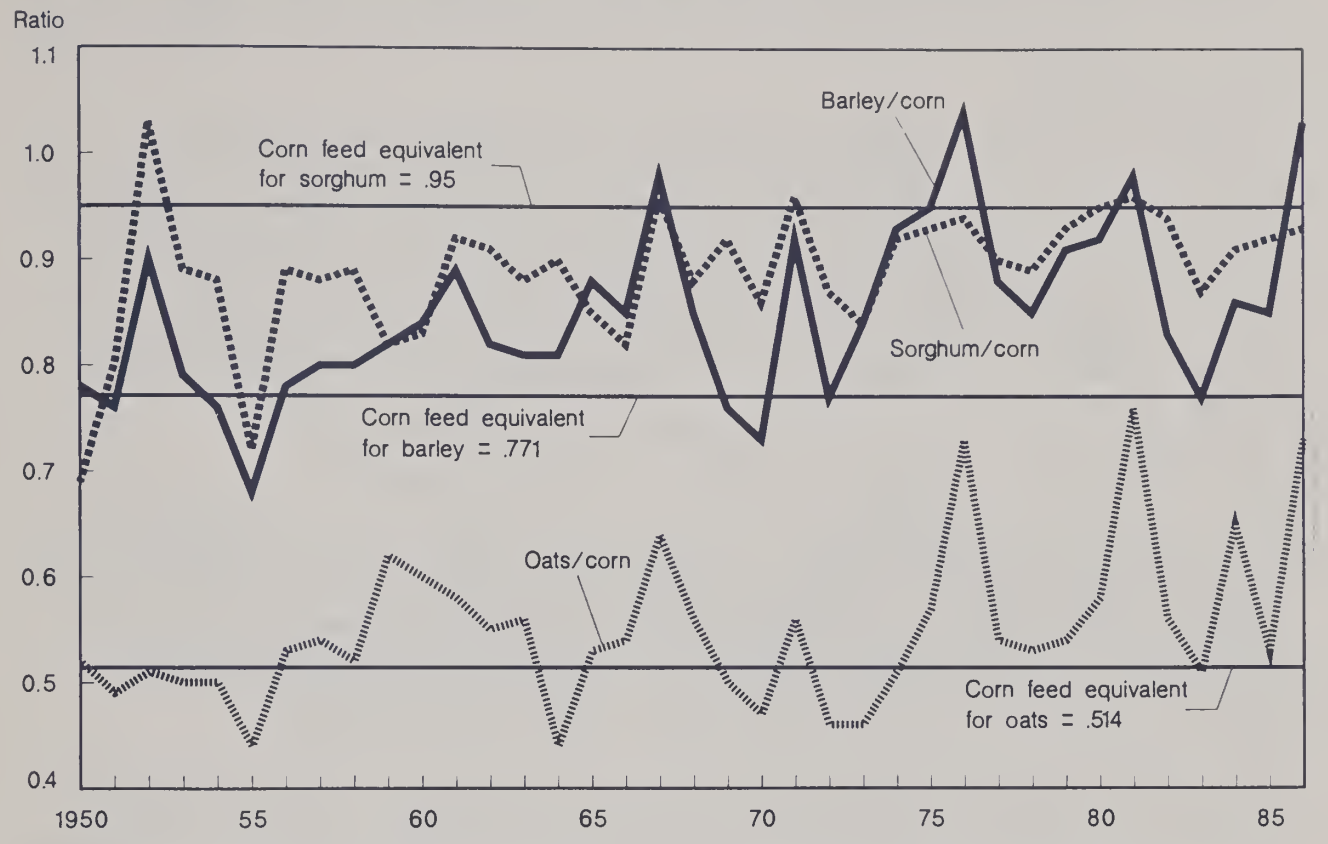
Price

Oats prices are determined in both the cash and futures market by the interaction of buyers and sellers. Factors that partially explain these prices include oat supply, prices of competing grains, numbers of animals on feed, livestock and milk prices, per capita income, and population. Oats are often sold at a price higher than their feed value due to their special feed characteristics or food value. Producer prices of oats, adjusted for inflation, have trended downward by 3.3 cents per bushel per year during 1950-85.

The elasticity for oats feed consumption with respect to oats price is slightly elastic ranging in value from -1.07 to -1.27 (2, 6, 7, 9, 29). Thus, feed consumption would decline (increase) by 1.07 to 1.27 percent for a 1-percent increase (decrease) in the price of oats if other factors were constant.

Because a large portion of oats is used in feed, the price of oats is highly correlated to the price of corn, the major feed grain. Based on a corn feed value equivalent, oats are equal to 51.4 percent of corn on average, bushel for bushel ((32 lbs./bu. x 90 percent of corn's total digestible nutrients) / (56 lbs./bu.)) (10). During 1950-86, the annual crop year price ratio of oats to corn was 55.2 percent and was statistically trendless (fig. 4). This ratio ranged from a low of 44.4 percent in 1955, due to a supply of oats that rose faster than the corn supply, to a high of 75.6 percent in 1981, which was

Figure 4
Price ratios: Barley, oats, and sorghum relative to corn



caused by a surge in the corn supply. The oats/corn supply ratio remains a significant variable in the explanation of this price ratio despite an annual negative trend of 1.2 percent during 1950-85.

Thus, the price of oats has usually been higher than its feed value. This ratio could increase with time. For example, as the volume of oats sold from the farm declined, the relative share of feed use also declined. In contrast, the relative share processed for food has increased. In addition, the racehorse and pleasurehorse industries have been known to seek a white, plump oat for feed and are reportedly willing to pay a premium for this quality, thereby, supporting the price of oats above its feed value.

The 1986 marketing year will probably yield a ratio above the average. For example, the December 1986 futures price for oats, as of mid-December 1986, was about 110 percent of the futures price of corn, bushel for bushel. The farm cash price received for oats was 90 percent of corn for November 1986. This divergence from the average was due to the short oats crop of 1986 caused, in part, by weather problems and the unusually low corn prices in relation to the corn loan rate.

During 1950-86, the sorghum price averaged 6.2 percentage points less than its feed value (fig. 4). Oats sold for an average of 3.8 percentage points above feed value, while barley averaged 7.9 percentage points above feed value. These results reflect the fact that feed use accounts for the largest proportion of sorghum consumption followed by oats and then barley. Nonfeed uses of each grain command a premium and, thus, raise the average price above

its feed value. Sorghum's average price ratio was 88.8 percent, compared with its corn feed value equivalent of 95 percent. Barley's average price ratio was 84.9 percent, and its corn feed value equivalent was 77 percent.

Real Price Trends

Average oats prices received by farmers, when adjusted for inflation (1982=100), show an annual negative trend of 3.3 cents per bushel from 1950-86 (fig. 5). This trend compares with a negative real price trend of 7.5 cents per bushel for corn and 12.7 cents per bushel for wheat. Although soybean prices declined over this period, their trend was not statistically significant. Technology has improved yields in oats, corn, and wheat faster than the growth in their demand, thereby creating a declining trend in real prices. This trend was temporarily broken by the surge in export demand during the seventies.

Returns Per Acre

Net returns per acre for oats at the U.S. level ranked third or lower during 1975-85 (behind soybeans and corn) when compared with corn, barley, wheat, and soybeans (app. table 2). 3/ Oats placed fifth during 1983-85. Lower net returns per acre explain, in part, why some producers have shifted from oats to barley in a combined base situation or why the importance of oats has diminished in the Corn Belt. Also, more recently, oats competed less favorably with wheat, barley, and in some cases, sunflowerseed.

Since 1982, nonparticipating producers in the Government oats program seemed to achieve a greater return than participating producers, except in 1985 (table 5). Participating barley producers at that time averaged a greater net return than oats producers, regardless of program participation.

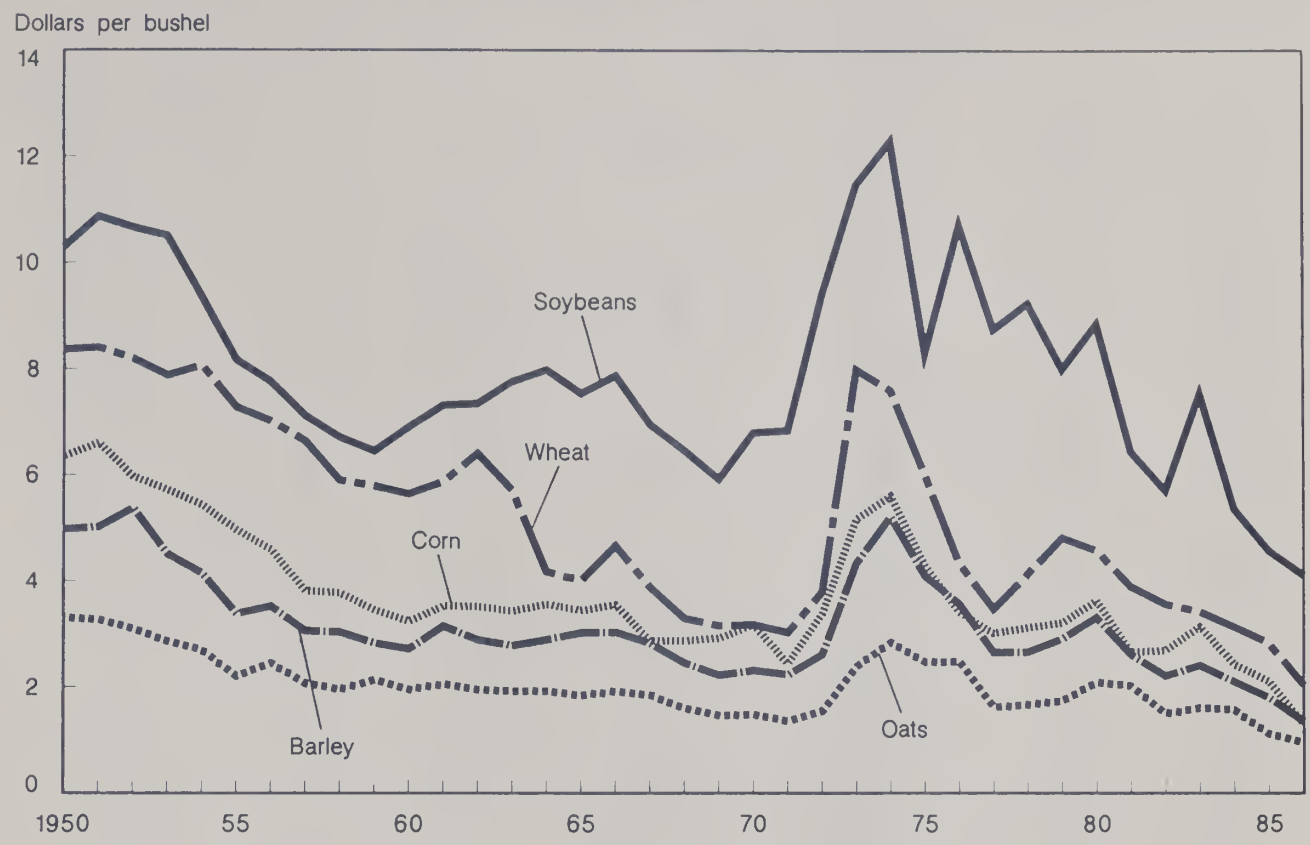
Variable cash expenses for producing oats are lower than for other major field crops. Thus, their low cost and ease of planting make them an excellent candidate for a conservation crop.

WORLD OATS TRADE

Trade in the world oats grain market can be characterized as variable but low in volume. World oats trade averaged 1.4 million metric tons annually during 1960-85, ranging from 1-2 million metric tons, or about 2-4 percent of production (tables 6 and 7). Most countries produce oats for the domestic market and export grain only when production exceeds domestic use. The extent of trade also depends on the availability of other feed grains in the world market. Oats are less likely to be traded than other grains because their light weight and bulky characteristics make transport costs prohibitive. Thus, unlike other grains, world trade for oats may continue to be limited.

3/ Receipts, variable costs of production, and net returns were obtained from USDA's Economic Indicators of the Farm Sector (12, 23, 24). These figures exclude Government payments. If Government payments were included, corn, wheat, and barley would appear more favorable. An analysis of net returns including Government payments for several crops of the Northern Plains States is shown in table 5.

Figure 5
Real farm prices: Corn, barley, oats, wheat, and soybeans



World Trade

Major oats-exporting countries are the United States, Canada, Australia, Sweden, Finland, France, and Argentina. Together these countries exported 85 percent of world oats in 1980-85. Exports from the Soviet Union, United States, Canada, Federal Republic of Germany, and Argentina have declined, while exports from Sweden, Finland, and France have increased. Exports as a share of production have been low for the larger producing countries but much greater (8-20 percent) for Australia, Sweden, Finland, France, and Argentina.

During 1983-86, the United States began to import more oats. During 1982-86, it was a net importer, in contrast to its net export role from 1955-81. This trend is expected to continue in 1986. Japan, Federal Republic of Germany, Italy, Switzerland, the Netherlands and Belgium/Luxembourg imported most of the world's oats in 1960-85.

World Production and Consumption

Oats rank sixth in world cereal production, exceeded by wheat, maize, rice, barley, and sorghum. However, world production of oats has declined due in part to emphasis placed on competitive crops that possess greater amounts of energy or protein. The Soviet Union, United States, and Canada have produced at least 55 percent of the world oats production in 1960-85, with the Soviet Union surpassing the United States as the top producing country. Grain yields per hectare have been greatest in the Federal Republic of Germany and Sweden, due in part to good varieties and intensive cultural management practices.

Table 5--Net returns per acre for selected crops of the Northern Plains

Crop	1980 1/	1981 1/	1982		1983		1984		1985	
			Participant 2/	Nonparticipant 3/	Participant	Nonparticipant	Participant	Nonparticipant	Participant	Nonparticipant
					Dollars per acre 4/					
Oats	48.18	48.64	38.32	44.71	39.00	44.19	44.13	51.11	49.11	28.52
Corn	42.65	36.51	63.58	63.18	71.23	40.95	69.90	48.95	108.30	90.03
Wheat	86.58	40.20	49.28	49.97	61.45	69.50	69.57	88.72	67.93	64.62
Barley	51.04	31.06	50.67	34.93	46.99	50.48	62.40	19.02	84.35	65.74
Soybeans	149.04	122.46	--	127.42	--	156.80	--	79.39	--	116.82
Flaxseed	71.71	60.99	--	41.72	--	53.03	--	57.30	--	49.86
Sunflowers	58.36	68.43	--	31.31	--	82.09	--	33.24	--	45.80

-- = Government programs were nonexistent for these commodities.
1/ Government programs were not in effect for 1980 and 1981.
2/ Net returns when participating in Government programs.
3/ Net returns when not participating in Government programs.
4/ Northern Plains' variable cost of production and average market prices for South Dakota were used to compute net returns.

Table 6--World oats trade by major trading countries

Country	1960-64	1965-69	1970-74	1975-79	1980-85
			1,000 metric tons		
Average imports:					
Soviet Union	0	0	165.0	122.6	83.3
United States	38.6	39.0	21.8	18.8	245.2
Canada	16.2	0	28.6	7.6	7.5
Germany, Fed. Rep. of	361.8	453.6	482.8	336.8	199.0
Poland	12.0	6.0	52.6	80.4	27.0
China	67.4	0	0	0	0
Sweden	16.6	.4	17.8	5.6	1.2
Finland	15.0	.2	2.6	1.0	36.2
France	25.8	1.0	.2	1.0	34.5
Japan	6.0	39.8	165.4	167.0	116.7
Italy	141.8	217.2	184.8	114.6	90.5
Germany, Dem. Rep.	30.2	5.4	62.4	25.0	28.3
United Kingdom	37.8	20.0	18.4	42.2	18.7
Belgium/ Luxembourg	45.2	82.0	60.0	72.8	56.0
Brazil	12.4	15.0	27.2	31.8	6.3
Ecuador	3.2	8.2	15.2	26.2	22.3
Netherlands	195.0	84.0	74.4	42.8	45.5
Switzerland	128.4	159.4	169.2	147.0	123.2
Ireland	19.6	9.8	10.8	12.6	3.7
Subtotal	1,173.0	1,141.0	1,559.2	1,255.8	1,145.1
Total world	1,298.0	1,271.6	1,696.0	1,343.2	1,244.5
			Percent		
Subtotal's share of world	90.4	89.7	91.9	93.5	92.0
			1,000 metric tons		
Average exports:					
Soviet Union	65.8	9.8	19.4	0	0
United States	224.0	185.2	370.2	106.0	70.7
Canada	174.8	106.8	104.0	189.6	65.7
Germany, Fed. Rep. of	25.8	25.6	28.6	27.4	6.2
Poland	0	7.2	11.2	.2	0
Australia	336.2	275.8	316.8	336.4	236.0
Sweden	84.8	138.6	264.4	150.8	320.0
Finland	3.2	8.8	81.8	28.8	140.7
France	22.6	101.0	151.8	193.4	265.8
Argentina	297.8	196.6	158.6	218.0	85.0
Subtotal	1,235.0	1,055.4	1,506.8	1,250.6	1,190.1
Total world	1,344.4	1,224.0	1,702.2	1,450.6	1,390.7
			Percent		
Subtotal's share of world	91.9	86.2	88.5	86.2	85.6

Source: (27).

Table 7--World and U.S. oats trade as a share of total consumption

Year	World trade as a share of world consumption	U.S. exports as a share of foreign consumption
	Percent	
1960	2.1	1.0
1961	3.0	.7
1962	2.7	1.0
1963	2.6	.2
1964	3.3	.2
1965	3.6	1.6
1966	2.6	.7
1967	2.3	.2
1968	2.3	.1
1969	1.8	.1
1970	3.5	.6
1971	3.5	.8
1972	3.1	.7
1973	3.4	1.9
1974	2.2	.4
1975	2.7	.5
1976	3.1	.1
1977	2.8	.5
1978	3.1	.1
1979	3.1	.1
1980	2.8	.5
1981	2.5	.2
1982	2.2	.1
1983	3.6	.1
1984	3.9	1/
1985	3.0	.1

1/ Less than 0.1 percent.
Source: (27).

World production of oats for grain averaged 49.5 million metric tons during 1960-69 (table 8). Production rose to an average 52.5 million metric tons in 1970-74, but has since declined to 45.3 million metric tons. Average production of oats increased in the Soviet Union, Fed. Rep. of Germany, and China, while declining in the United States, Canada, and France. In many parts of the world, oats are grown for multiple uses, such as pasture, forage, grain, or bedding. Oats comprise only 5-7 percent of world coarse grain production.

Table 8--World oats production by major producing countries

Country	1960-64	1965-69	1970-74	1975-79	1980-85
			1,000 metric tons		
Average production:					
Soviet Union	7,214.8	10,335.0	15,153.0	16,544.0	16,107.3
United States	14,496.6	12,900.6	10,867.8	8,826.4	7,330.5
Canada	6,073.2	5,515.0	4,945.6	4,042.6	3,048.8
Germany, Fed. Rep. of	2,210.6	2,595.8	2,987.0	3,280.4	3,627.7
Poland	2,700.4	2,746.4	3,216.0	2,569.0	2,549.8
Australia	1,227.6	1,344.2	1,121.0	1,275.4	1,466.0
China	1,069.0	1,316.0	1,407.0	1,577.8	1,695.0
Sweden	1,271.6	1,320.6	1,615.6	1,412.4	1,647.7
Finland	845.6	1,008.8	1,256.2	1,282.0	1,255.3
France	2,628.0	2,549.0	2,278.0	1,871.0	1,761.5
Subtotal	39,737.4	41,631.4	44,847.2	42,681.0	40,489.6
Total world	49,500.4	50,224.6	52,548.8	48,931.6	45,289.2
			Percent		
Subtotal's share of world	80.3	82.9	85.3	87.2	89.4

Source: (27).

Ten major producing countries accounted for 80-90 percent of world oats grain production during 1960-85 (table 8). Oats thrive in cool, moist climates and are particularly sensitive to hot, dry weather from head emergence to harvest. Consequently, they are generally concentrated between 35-50 degrees latitude North and 20-40 degrees latitude South. Although production and yields have been increasing in Australia over the past two decades, oats in the Southern Hemisphere are primarily used as a forage crop for cattle in countries such as Argentina and Uruguay.

In the Soviet Union, oats are better suited to the cool, humid climate and acid soils of the northern parts of the country than are competing crops, such as wheat or barley. Oats have served well as a livestock ration for the Soviet Union's growing livestock industry.

World consumption of oats is concentrated in the major producing countries. Seventy-five percent of total oats grain consumption is used as animal feed, while food and seed use account for 22 percent, and the remaining 3 percent is exported. The Soviet Union, United States, Canada, Fed. Rep. of Germany, and Poland account for nearly two-thirds of world feed use. Food consumption of oats in most countries tends to be relatively low. The United States and the United Kingdom lead in the consumption of rolled oats. However, U.S. food consumption of oats in 1984 accounted for only about 8 percent of total disappearance.

U.S. Role in World Trade

The U.S. market share of world oats exports averaged 16 percent in the sixties, rose to 21.7 percent during 1970-74, but dropped to 5 percent during 1980-85. Since the U.S. export surge in 1973, when the Soviet Union imported a large amount of U.S. oats because of tight feed grain supplies around the world, U.S. oats exports have declined to low levels, especially in the past 4 years. Higher U.S. prices and a stronger U.S. dollar have made U.S. exports less attractive.

Between World Wars I and II, the United States was a net exporter of oats, except in years of short crops. In 1939-55, however, this pattern changed because imports exceeded exports in every year except 1941, 1946, and 1947. The United States again became a net exporter from 1955-81 (13).

Oats imports averaged close to 40,000 metric tons in the sixties but dropped to about 20,000 metric tons in the seventies. The United States imported most oats from Canada due to quality preferences and price advantages (lower transport costs due to location advantage). During 1980-85, oats imports averaged 245,200 metric tons per year, mostly from Scandinavian countries and Canada.

The United States was a net importer of oats during 1982-86. During this period, imports came mostly from Canada, Sweden, and Finland (table 9). Other sources of imports were the Netherlands, Australia, and Argentina. Economic advantages (the strong value of the dollar in relation to Finnish, Swedish, and Canadian currencies, table 10), superior quality (high in test weight and white in color), and a short domestic supply justified oats imports. U.S. harvests in both 1983 and 1986 were short due to weather conditions, and quality was adversely affected. For 1984-85, domestic oats production seemed adequate to handle domestic consumption, but the world economic environment created a situation whereby foreign oats could be imported into the United States at competitive prices. In 1985, the loan rate also inhibited U.S. competitiveness.

Both Sweden and Finland generally experienced surplus production during the 1983-86 period. Whether these surpluses continue depends, in part, on the weather and the success of acreage reduction programs. Surplus oats were bought by these governments and generally did not reenter their domestic commercial markets after purchase (4, 11). These governments have several disposal alternatives available, one of which is to export them at the world price. Because the price paid to farmers is higher than the world price, a subsidy financed by both the government and the farmer exists. Also, the higher value of the dollar and lower ocean freight rates made it more economical to export. In some cases, ocean freight may have been made at backhaul rates, which were lower than the usual quoted rates.

Scandinavian oats delivered to gulf ports were competitive with U.S. prices and were of a desired feeding quality, white in color, and high in test weight. At times, these oats were competitively priced with oats in Toledo and thus could be shipped by barge (the barge market was already depressed, and this haul was considered a backhaul, which can be done for a very low rate) into Kentucky less expensively than U.S. oats. Swedish oats have penetrated mostly the Southeast market and, to a lesser degree, the Northeast market for the more recent crop years.

Table 9--U.S. oats imports by country of origin, fiscal years

Country	1980	1981	1982	1983	1984	1985	1986
	1,000 metric tons						
Canada	15.1	12.7	27.2	115.4	128.3	44.7	71.1
Argentina	0	0	0	.2	0	1.0	0
Sweden	0	0	0	94.5	35.6	311.2	286.8
Finland	0	0	0	0	171.7	120.1	92.9
Netherlands	0	0	0	0	0	10.5	0
Pakistan	0	0	0	0	.03	0	0
Australia	0	0	0	0	13.2	.1	0
Other	0	.1	0	0	0	0	0
Total	15.1	12.8	27.2	210.1	348.8	487.7	450.8

Source: (27).

Table 10--Exchange rates for selected countries

Year	Canadian dollar	Finnish markka	Swedish krona
	Cents per unit of foreign currency		
1970	95.802	23.809	19.282
1971	99.021	23.898	19.592
1972	100.937	24.118	21.022
1973	99.977	26.170	22.970
1974	102.257	26.499	22.563
1975	98.297	27.184	24.141
1976	101.410	25.877	22.957
1977	94.112	24.817	22.383
1978	87.729	24.288	22.139
1979	85.386	25.671	23.323
1980	85.530	26.809	23.647
1981	83.408	23.173	19.860
1982	81.077	20.745	16.063
1983	81.133	17.953	13.044
1984	77.244	16.639	12.103
1985	73.226	16.135	11.672
1986	71.959	1/ 19.409	14.041

1/ Preliminary.
Source: (5).

In the 1986 crop year, oats were imported into the United States because of the short 1986 crop and its related quality deficiencies. These imports are being used by both feed and food processors. The future of oats imports depends partly upon the level of domestic production, exchange rates, and surplus foreign production.

OVERVIEW OF DOMESTIC FARM PROGRAMS FOR OATS

Government programs for oats, a nonbasic commodity, evolved slowly during the thirties when the basic commodities began receiving price support. Oats were not designated as a basic commodity and did not receive direct support during the thirties. Programs for oats have ranged from indirect price supports from the price effects of corn, a supported commodity, to the current direct price and income supports. Government outlays for oats are minor compared with the other feed grains, wheat, and soybeans. Participation by oats producers in Government programs has never been very large for numerous reasons such as large onfarm use of oats and lack of economic incentives.

Evolution of Government Programs for Oats

The U.S. agricultural sector has received price and income support primarily from Government programs since the Agricultural Adjustment Act of 1933 (3, 14). 4/ That act was passed in response to the farm sector's economic problems of the Great Depression. Oats were not designated as a basic commodity and therefore did not receive direct support during the thirties; however, indirect price support was received through price supports for corn, the major feed grain. Oats prices were first directly supported in 1945 (21). Prices were supported through loans and purchase agreements during 1947-53, at the discretion of the Secretary of Agriculture. Price supports for oats became mandatory with the Agricultural Act of 1956.

Emergency feed grain legislation was enacted in 1961 that provided higher support levels for farmers who voluntarily reduced acreage of corn and grain sorghum by 20 percent or more. In general, the voluntary diversion programs of the sixties were aimed at commodities such as wheat, cotton, corn, sorghum, and sometimes barley. Oats were not included. Direct payments were also made to commodities such as corn and sorghum but not to oats.

The Agricultural Act of 1965 permitted farmers with a history of oats or rye acreage to qualify for an oats-rye base. If farmers participated in both the wheat and feed grain programs, they could substitute wheat on the oats-rye base after meeting a diversion percentage. The purpose of this program was to provide an opportunity for some farmers to increase wheat acreage from land that had been in oats or rye in the fifties. This act covered marketing years 1966-70.

The Agricultural Act of 1970 introduced set-aside programs but eliminated the need for the oats-rye base since wheat acreage was no longer constrained by an allotment. The twofold system of supports with minimum loan levels and an additional price support payment continued in the 1970 Act. Rye and oats farmers were eligible for loans but not for price support payments.

4/ Before 1933, prices were fixed during World War I and prices were supported through purchase programs from the Federal Farm Board.

The Agriculture and Consumer Protection Act of 1973, effective for the 1974-77 crops, introduced the concept of target prices that replaced price support payments. Target prices were not specified for oats but covered corn and sorghum and, if designated by the Secretary, barley. The 1973 Act had no specific provision for oats other than price support loans.

The Food and Agricultural Act of 1977 mandated target price protection for corn and sorghum and made such protection optional for oats and barley. Oats were not designated for target price protection but were eligible for the 3-5 year farmer-owned reserve that provided separate loan rates and a reserve storage payment, initially set at $0.19 per bushel per year and later increased to $0.20 per bushel. A set-aside program was authorized if the Secretary of Agriculture determined that supplies were apt to be excessive.

The Agricultural and Food Act of 1981 authorized target prices, price support loans, acreage controls, and the farmer-owned grain reserve for oats. Oats and barley were given a common acreage base. Consequently, an oats producer could plant all the oats-barley permitted acreage to either oats or barley or some combination.

The Food Security Act of 1985 was signed into law at a time when most U.S. farm commodities had lost their competitiveness in world markets. Major objectives for the 1985 Act were to expand exports, to protect farm income, and eventually to reduce outlays for farm programs and Government intervention in the agricultural sector.

Many of the same policy parameters remain with the 1985 Act as with the 1981 Act, but the Secretary has much more discretionary authority (8, 15). For example, loan rates may be adjusted to achieve competitive conditions and repayment of these loans may be less than the basic loan rate. Minimum target prices for grains remain constant in 1986 and 1987 and gradually decline by about 10 percent between 1988-90, unlike under the 1981 Act where they steadily increased.

The Secretary of Agriculture retains discretionary power over acreage reduction programs, but those programs become mandatory if stocks reach certain levels. Likewise, the farmer-owned reserve is continued but, in addition to a minimum entry level, a maximum has also been imposed.

The 1985 Act mandates that the Secretary establish a Conservation Reserve Program containing 40-45 million acres of highly erodible cropland by crop year 1990. Such a reserve could retire some of the acreage base for oats and thereby reduce production potential.

Policy Parameters

Frequently used policy parameters are the regular and reserve loan rates and target prices. For example, the basic loan rate for corn under the 1985 Act for the 1988 through 1990 crops equals 75-85 percent of the average of the previous 5 years' market prices, excluding high and low years, but the loan rate cannot be reduced by more than 5 percent from the previous year's level. The Secretary can further lower the basic loan rate by up to 20 percent between 1986 and 1990, if the previous marketing year's average price was less than 110 percent of that year's loan rate, or if a rate reduction is necessary to maintain a competitive market position.

The loan rate for oats is set at a level that the Secretary determines fair and reasonable, in relation to the level for corn, and that reflects factors such as the relative feed value. The 1986 loan rates for oats were set at $0.99 per bushel, and for corn were set at $1.92 per bushel, a relationship reflecting feed value (table 11). Presently, reserve loan rates are equal to the regular loan rates.

The target price for the 1986 oats crop was set at $1.60 per bushel, compared with corn's target price of $3.03 per bushel. The oats target price is 51-52 percent of the corn target price, a percentage based on the feed value of oats in relation to corn. The target price for oats must be fair and reasonable in relation to the payment rate established for corn.

Program Objectives and Performance

The overall objectives of Government price and income supports are to stabilize, support, and protect farm income prices; to assist in maintaining balanced and adequate supplies of food, feed, and fiber; and to aid in the orderly marketing of farm commodities. This section evaluates how programs have operated to achieve their objectives.

Stabilize and Support Prices and Income

In general, Government oats programs have supported producer prices and incomes through price supports, or more recently through direct income payments (deficiency or diversion payments). Programs have contributed to the stability of producer prices through their orderly marketing features of the price support loan. Producer's price risk is generally minimized through participation in oats programs. Nonparticipants also benefit indirectly from supported market prices. Both participating and nonparticipating oats producers will benefit from the price-enhancing effects of the feed grain program.

Producer Benefits. Both the regular and reserve price support loan programs provide an orderly marketing mechanism that strengthens prices and reduces downward price risk. The program participants can receive a regular loan on their oats and pay back the principal plus interest or forfeit the grain. In times of tight cash flow, large surpluses, or strict credit qualifications by lending institutions, price support loans can be beneficial to farmers. The reserve loan can be even more attractive when reserve loan rates are higher than regular loan rates and at least part of the interest cost is waived (as was the case with the 1982 crop). Loan rates generally support prices, thereby minimizing the risk of lower prices. However, because oats farm prices were much higher than their loan rates, oats loan rates had little effect on farm prices during 1972-84.

In addition to the regular and reserve loan programs, acreage reduction programs tend to strengthen prices despite nonparticipation and idling of less productive land by participants. Although price strength is associated with supply reduction, the acreage reduction program had not been used very frequently with oats until recently.

Loan rates were quite supportive of farm and terminal market prices during 1950-71 (fig. 6). The average difference of the farm price less loan rate was

Table 11--Oats stocks-to-use ratios, farm prices, and policy parameters

Crop year 1/	Stocks-to-use ratio	Price received	Loan rate	Reserve loan rate	Target price	Direct payment
	Percent	Dollars per bushel				
1950	27	0.79	0.71	---	---	---
1951	25	.82	.72	---	---	---
1952	23	.79	.78	---	---	---
1953	23	.74	.80	---	---	---
1954	28	.71	.75	---	---	---
1955	29	.60	.61	---	---	---
1956	23	.69	.65	---	---	---
1957	32	.61	.61	---	---	---
1958	33	.58	.61	---	---	---
1959	27	.65	.50	---	---	---
1960	35	.60	.50	---	---	---
1961	31	.64	.62	---	---	---
1962	32	.62	.62	---	---	---
1963	39	.62	.65	---	---	---
1964	36	.63	.65	---	---	---
1965	43	.62	.60	---	---	---
1966	37	.67	.60	---	---	---
1967	40	.66	.63	---	---	---
1968	50	.60	.63	---	---	---
1969	65	.58	.63	---	---	---
1970	64	.62	.63	---	---	---
1971	70	.60	.54	---	---	---
1972	56	.72	.54	---	---	---
1973	38	1.18	.54	---	---	---
1974	33	1.53	.54	---	---	---
1975	31	1.45	.54	---	---	---
1976	28	1.56	.72	---	---	---
1977	52	1.09	1.03	---	---	---
1978	45	1.20	1.03	1.03	---	---
1979	41	1.36	1.08	1.08	---	---
1980	34	1.79	1.16	1.23	---	---
1981	28	1.89	1.24	1.31	---	---
1982	42	1.49	1.31	1.49	1.50	---
1983	33	1.67	1.36	1.36	1.60	0.11
1984	35	1.69	1.31	1.31	1.60	---
1985	33	1.25	1.31	1.31	1.60	.29
1986 2/	23	1.10	.99	.99	1.60	.50

--- = No reserve loan rate, target price, or direct payment.

1/ Reflects June through May crop year.

2/ Preliminary. Based on World Agricultural Supply and Demand Estimates as of Jan. 15, 1987.

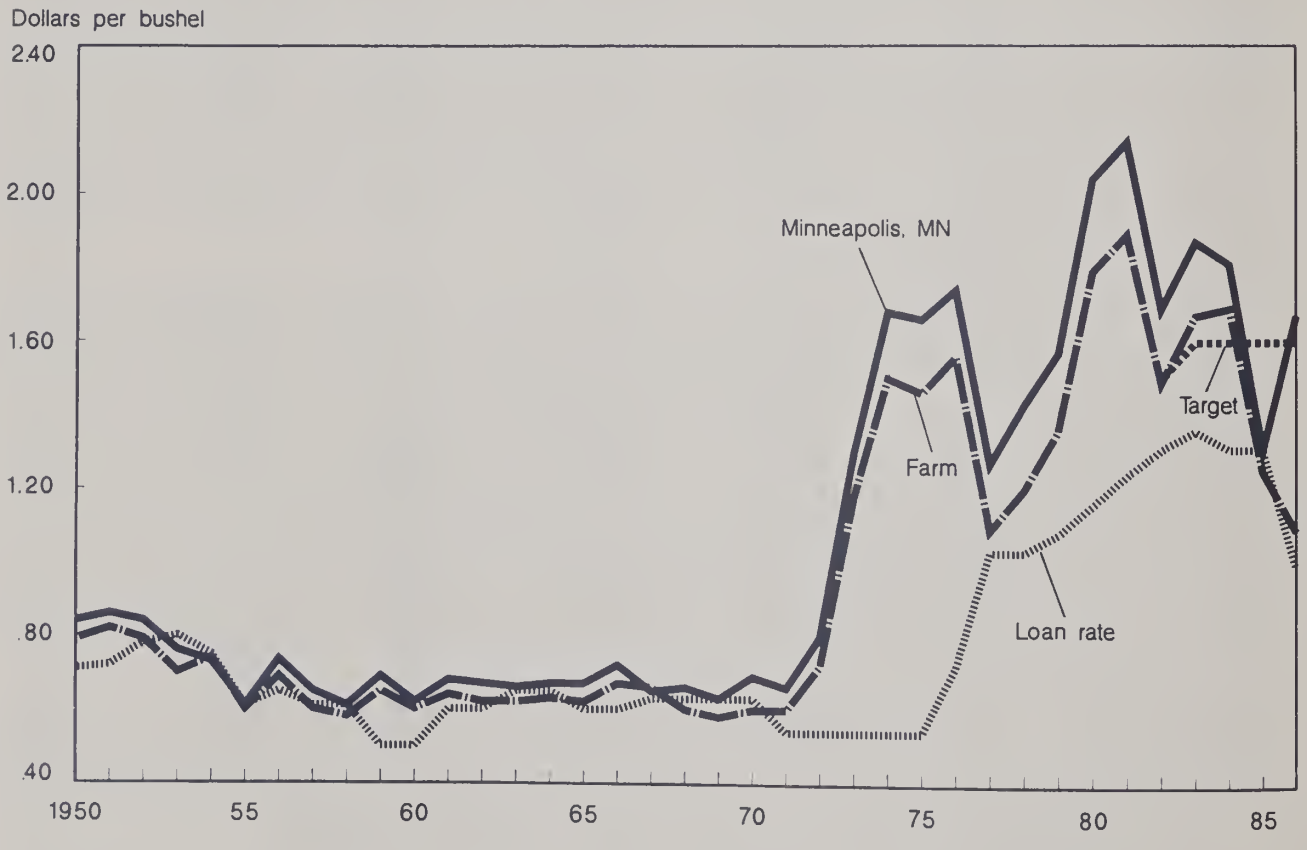
Source: (25, 26).

only 1.8 cents per bushel. Farm and terminal prices were fairly stable during 1950-71, with an average difference of 4.1 cents per bushel.

Loan rates were less a factor in supporting prices during 1972-86. Exceptions include 1977 when the oats loan rate was raised to $1.03 per bushel, above $1.00 for the first time, and 1985 when oats prices dropped below the loan rate due to low program participation, abundant supplies, and adjustments caused by the new farm legislation, which lowered loan rates for the 1986 crops. However, over the entire period of 1972-86, farm prices exceeded loan rates by an average of 42 cents per bushel. In the past several years, oats prices have been above the loan rate because of a better balance between supply and demand for oats than for other commodities such as wheat, whose farm prices have been at or below the loan rate.

Oats target prices, and thus deficiency payments, were authorized with the Food and Agriculture Act of 1981. Although payments were permissible in 1982, market price strength precluded such payments that year. However, payments were made for the 1983 crop at $0.11 a bushel for a total of $5 million. Deficiency payments were also made for 1985 and 1986.

Figure 6
Oats prices: Market, farm, loan rate, and target



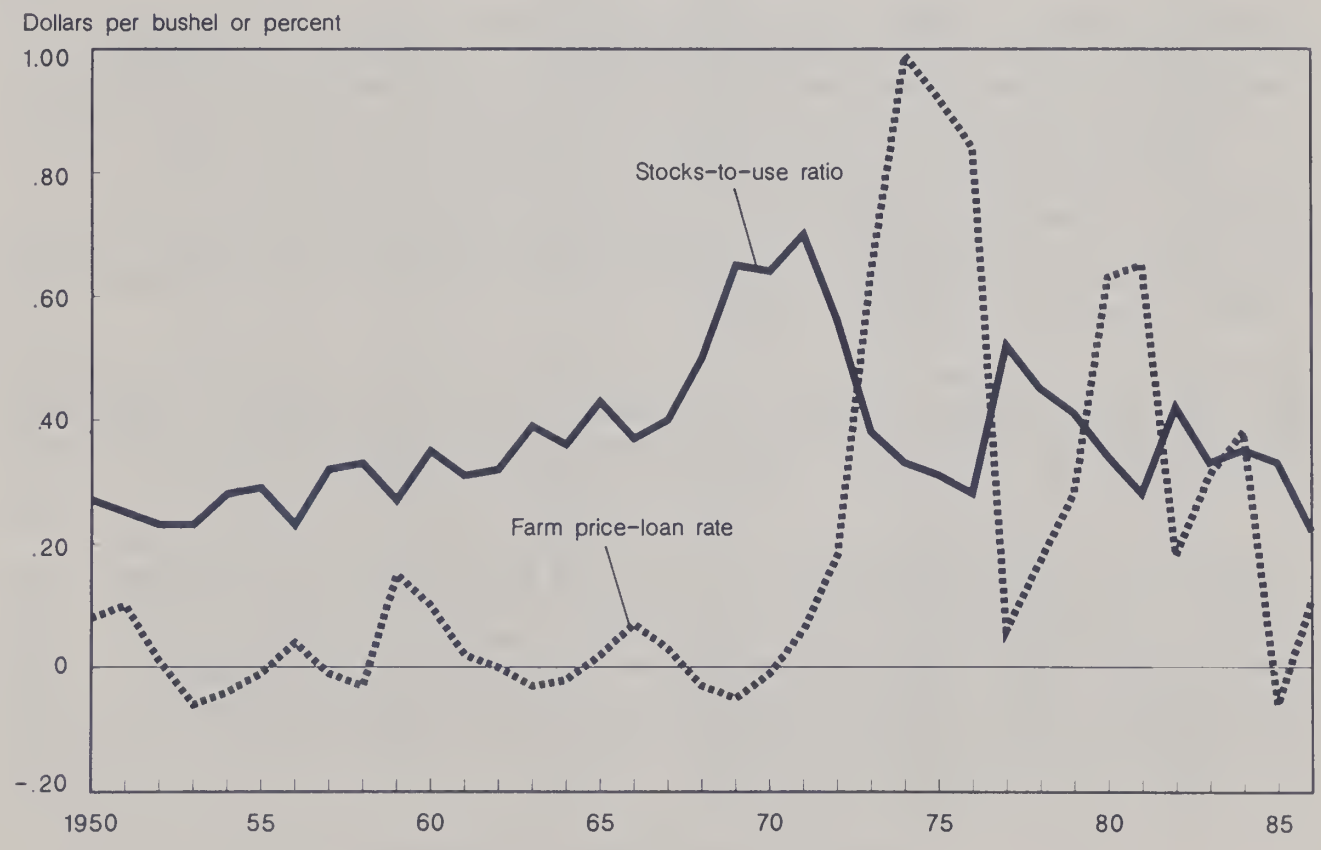
Indirect Program Benefits. Although feed grain programs provide benefits to feed grain producers, costs are increased for the livestock sector, a major component of demand, and for consumers of livestock and oats products. Higher oats prices represent an increase in input costs that affect livestock producer decisions and consumers of oats food products.

Assist in Maintaining Balanced and Adequate Supplies

The stocks-to-use ratio, a general measure of a market's supply and demand situation, ranged from 23-70 percent during 1950-86 (fig. 7). A lower percentage indicates a tight supply and demand situation; a larger percentage indicates a greater supply in relation to use.

The supply and demand situation for oats was generally balanced during 1950-86, except for 1965, 1968-72, and 1977-78 when stocks-to-use ratios were equal to or greater than 43 percent, peaking at 70 percent in 1971 (stocks equaled 5-8.5 months of disappearance). During the early fifties and 1986, this ratio declined to a low of 23 percent. Stocks-to-use ratios for the remaining years ranged from 25-42 percent (stocks equaled about 3-5 months of disappearance).

Figure 7
Oats supply, use, and price relationship



In general, the minimum stocks-to-use ratio was about 25 percent, an equivalent of 3 months of disappearance. If 2 months are added to this figure for variation, a normal ratio would range from 25-42 percent. The stocks-to-use ratio for corn has usually been much lower (8-33 percent) but more variable than oats, while the stocks-to-use ratio for wheat is larger than for oats.

Prices generally fell during the periods of excess supply in 1965, 1968-72, and 1977-78 (table 12). A combination of increased domestic consumption and fewer acres planted produced a more balanced situation over time.

Aid in Orderly Marketing

Based on the data shown in table 13, oats producers sell 33-50 percent of their crop in July and August. Most price support loans are made during this period, thereby removing potential supplies from the market but making them available in a more uniform manner over time (table 14). While the oats program aids orderly marketing, no more than 2 percent of the crop was put under support in the eighties and, during the seventies, ranged only from 0.6 to 11.9 percent. During 1950-85, the maximum percentage of the crop put under support was 15.7 percent.

Program Activity and Costs

Program activity for oats varies from price support loans to direct payments. Price support began in 1945 and has continued to the present. Government-owned stocks reached a peak during 1971 when the stocks-to-use ratio reached 70 percent and prices received by farmers declined to $0.604 per bushel (table 15). These forfeitures followed from the percentage of production that was put under price support loans in 1969 at 16 percent and in 1970 at 12 percent. The surge in export demand beginning in 1972/73 caused loan activity to decline as farmers redeemed their loans and sold their oats directly in the market. During the eighties, the percentage of production put under price support loans was less than 2 percent.

During fiscal year 1983, price and income support activity programs cost about $11.2 million, compared with $103.7 million in 1970, $1.5 million in 1985, and $26.2 million in 1986. The first deficiency and diversion payments were made for the year 1983 (table 16). These 1983 payments totaled $4.9 million.

Net Government expenditures for the oats program during 1982-86 have been consistently low in relation to the other feed grains, wheat, and soybeans (table 17). In fiscal year 1986, net expenditures for oats totaled $26.2 million, compared with $10.5 billion for corn. Major reasons for the low level of oats expenditures are the smaller crop size and lower program participation rates. Participation rates for the oats program ranged from 14-37 percent during the past 5 years, compared with 29-85 percent for corn and 48-84 percent for wheat (table 18).

EFFECTS OF INCREASED OATS IMPORTS

As a result of increased oats imports during 1983-86 compared to historical import levels during 1978-82, we expected domestic oats supply to increase and producer prices to decline slightly. Lower prices caused feed use of oats

Table 12--Ending stocks of oats, farm price received, and loan rate

Crop year 1/	Ending stocks				Price received	Loan rate
	CCC 2/	FOR 3/	FREE	Total		
	Million bushels				Dollars per bushel	
1950	9	0	352	361	0.79	0.71
1951	5	0	336	341	.82	.72
1952	13	0	295	308	.79	.78
1953	16	0	269	285	.74	.80
1954	41	0	333	374	.71	.75
1955	59	0	362	421	.60	.61
1956	27	0	265	292	.69	.65
1957	27	0	364	391	.61	.61
1958	42	0	404	446	.58	.61
1959	15	0	307	322	.65	.50
1960	9	0	377	386	.60	.50
1961	14	0	320	334	.64	.62
1962	17	0	308	325	.62	.62
1963	28	0	335	363	.62	.65
1964	42	0	283	325	.63	.65
1965	40	0	338	378	.62	.60
1966	43	0	274	317	.67	.60
1967	45	0	271	316	.66	.63
1968	47	0	377	424	.60	.63
1969	81	0	467	548	.58	.63
1970	143	0	428	571	.62	.63
1971	184	0	413	597	.60	.54
1972	158	0	305	463	.72	.54
1973	95	0	213	308	1.18	.54
1974	58	0	166	224	1.53	.54
1975	25	0	180	205	1.45	.54
1976	0	0	164	164	1.56	.72
1977	0	28	285	313	1.09	1.03
1978	3	39	238	280	1.20	1.03
1979	3	33	200	236	1.36	1.08
1980	2	0	175	177	1.79	1.16
1981	1	0	151	152	1.89	1.24
1982	1	5	214	220	1.49	1.31
1983	1	4	176	181	1.67	1.36
1984	1	3	176	180	1.69	1.31
1985	2	1	180	183	1.25	1.31
1986 4/	2	3	106	111	1.10	.99

1/ Reflects June through may crop year.
2/ CCC = Commodity Credit Corporation.
3/ FOR = Farmer-owned reserve.
4/ Preliminary. Based on World Agricultural Supply and Demand Estimates as of Jan. 15, 1987.
Sources: (25, 26).

Table 13--Monthly farm marketings of oats

Crop year	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
							Percent								
1970/71	0.2	4.7	15.9	19.8	8.0	4.7	4.0	4.9	7.3	7.3	6.4	5.1	5.5	6.2	100
1971/72	.3	3.7	16.0	17.2	8.3	4.9	4.1	5.2	7.0	7.8	7.1	6.0	6.1	6.3	100
1972/73	.3	5.3	12.6	14.7	7.3	4.5	4.4	5.9	9.1	7.4	7.0	5.9	7.3	8.3	100
1973/74	.5	4.5	12.4	18.1	8.1	5.2	5.3	5.7	8.9	7.7	5.1	5.4	6.1	7.0	100
1974/75	.4	3.6	18.3	16.7	7.9	5.3	4.0	5.1	7.1	6.3	6.3	5.8	6.4	6.8	100
1975/76	.7	4.4	17.8	17.5	7.1	4.3	3.6	5.2	7.3	6.9	6.6	5.8	6.2	6.6	100
1976/77	.3	3.7	23.8	17.6	6.1	4.4	4.0	4.6	6.3	6.0	6.5	5.6	5.3	5.8	100
1977/78	.4	3.0	23.0	13.0	5.9	4.3	4.0	3.7	4.7	6.0	7.1	7.6	7.3	10.0	100
1978/79	.2	3.3	12.9	18.2	7.9	6.7	4.3	5.3	6.5	5.9	7.1	7.7	5.7	8.3	100
1979/80	.3	3.6	13.9	17.6	7.2	7.7	3.9	7.8	6.3	5.9	5.8	6.0	5.7	8.3	100
1980/81	.5	3.3	22.0	18.7	7.1	4.4	4.4	5.4	7.3	7.0	6.5	4.8	3.8	4.8	100
1981/82	.6	3.5	20.6	17.0	7.2	4.6	4.3	4.9	4.7	6.7	6.6	6.6	5.9	6.8	100
1982/83	.1	2.3	13.5	24.7	6.6	4.3	3.5	5.6	6.9	5.3	5.7	7.4	6.2	7.9	100
1983/84	2.0	3.8	13.1	20.8	8.1	6.0	5.2	5.1	7.4	6.4	5.5	5.9	4.8	5.9	100
1984/85	0	.8	15.0	24.9	7.4	4.8	3.9	6.3	6.6	5.7	7.5	6.1	5.4	5.6	100
1985/86	.3	1.7	27.4	20.6	5.8	5.2	3.4	4.1	7.0	5.0	5.6	5.1	3.7	5.1	100

Source: (28).

Table 14--Price support loan activity for oats by marketing year

Month	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	Average 10-year	Average 3-year	Cumulative 3-year
	Million bushels														Percent		
Loans made:																	
June	0.1	0.1	0.1	0.1	0.4	0.3	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
July	.3	.3	.3	.3	7.4	.2	.1	0	.4	.1	.1	0	.1	.2	5.4	1.6	1.6
Aug.	3.9	1.5	1.2	.7	27.4	8.0	2.0	1.8	2.8	1.1	.9	.9	.9	1.6	28.7	22.0	23.6
Sept.	3.2	1.2	.5	.7	13.3	6.5	2.7	1.6	2.1	2.8	.4	1.2	1.3	2.3	2.1	23.6	47.2
Oct.	1.2	.5	1.0	.9	6.4	3.5	2.2	1.0	1.9	1.8	1.4	.5	1.3	1.6	12.9	26.0	73.2
Nov.	.9	.2	.2	.8	4.6	2.7	1.6	.5	.6	1.1	.3	.2	.4	NA	7.9	7.3	80.5
Dec.	.4	.1	.5	.6	2.7	1.2	.8	.6	.7	.8	.1	.2	.3	NA	4.9	4.9	85.4
Jan.	.3	.1	.2	.2	3.1	1.6	.9	.5	.6	.6	.2	.1	.3	NA	5.0	4.9	90.2
Feb.	0	0	.1	.1	1.8	.2	.5	.1	.2	.2	.1	0	.1	NA	2.0	1.6	91.9
Mar.	0	0	0	0	6.1	.4	.6	.1	.1	.3	0	0	.2	NA	4.8	1.6	93.5
Apr.	0	0	0	0	2.8	.2	.5	.1	.0	.2	.1	0	.3	NA	2.6	3.3	96.7
May	0	0	0	0	1.8	0	.1	0	0	.1	0	0	.1	NA	1.3	.8	97.6
June	0	0	0	0	1.0	0	0	0	0	0	0	.1	0	NA	0	.8	98.4
July	0	0	0	0	.9	0	0	0	0	.1	0	0	.1	NA	.7	.8	99.2
Aug.	0	0	0	0	.8	0	0	0	0	0	0	0	0	NA	.5	0	99.2
Sept.	0	0	0	0	.6	0	0	0	0	0	0	0	0	NA	.4	0	99.2
Oct.	0	0	0	.2	1.7	.3	0	0	0	0	0	0	.1	NA	1.4	.8	100.0
Total	10.3	4.0	4.1	4.6	82.8	25.1	12.1	6.3	9.6	9.2	3.6	3.2	5.5	5.7	100.0	100.0	100.0
Loans repaid:																	
Aug.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sept.	.1	.1	.1	.1	.2	.1	.1	.0	.1	0	0	0	0	.1	.7	0	0
Oct.	.2	.1	.1	0	.3	.1	.1	.1	.3	0	.1	0	0	.1	1.1	1.0	1.0
Nov.	.3	.2	.1	.1	.7	.4	.2	.2	.2	0	.2	.1	0	NA	2.2	3.0	4.0
Dec.	.6	.4	.2	.2	1.3	.4	.4	.2	.8	.1	.1	.2	0	NA	3.9	4.0	8.0
Jan.	1.2	.5	.3	.3	1.6	1.0	.6	.8	.6	.1	.2	.1	.1	NA	5.7	4.0	12.0
Feb.	1.4	.3	.5	.2	1.3	1.0	.7	.6	.9	.1	.3	.2	0	NA	5.9	6.0	18.0
Mar.	1.1	.3	.4	.6	2.9	1.5	.7	.8	1.0	.2	.2	.2	.1	NA	8.6	6.0	24.0
Apr.	1.0	.5	.5	.5	2.9	1.5	.6	.8	1.2	.3	.4	.3	0	NA	9.1	10.0	34.0
May	1.3	.7	.4	.4	3.4	2.2	.8	.7	.8	.4	.4	.3	.2	NA	9.9	11.0	45.0
June	2.1	.6	.3	.4	5.0	2.9	1.2	.6	.7	.5	.5	.3	.1	NA	12.5	13.0	58.0
July	.4	.1	.3	.4	4.0	2.5	1.7	.6	.6	.4	.3	.3	.2	NA	11.2	10.0	68.0
Aug.	.4	.1	.3	.3	4.1	1.9	.8	.2	.3	.3	.3	0	.1	NA	8.6	6.0	74.0
Sept.	.1	0	.2	.3	2.2	.6	.8	.2	.1	0	0	0	.1	NA	4.4	0	74.0
Oct	0	0	.1	.1	1.6	.4	1.4	.2	0	.9	.2	.1	.2	NA	5.0	12.0	86.0
Nov.	.1	0	.1	.1	1.7	.3	1.2	.1	.1	.4	.0	0	NA	NA	4.0	4.0	90.0
Dec.	0	0	.1	0	.9	.4	.4	.1	.1	.2	.1	0	NA	NA	2.3	3.0	93.0
Jan.	0	0	.1	.1	1.3	.7	.3	.1	.1	.2	0	0	NA	NA	2.9	2.0	95.0
Feb.	0	0	0	.1	.4	.7	.2	.0	.0	.4	.1	0	NA	NA	1.9	5.0	100.0
Total	10.4	3.9	4.1	4.2	35.8	18.6	12.2	6.3	7.9	4.5	3.4	2.1	1.1	0.2	100.0	100.0	100.0

NA = Not available.
Source: (20).

Table 15--U S. price support operations for oats

Year beginning July 1	Loan rate 1/	Farm price 1/	Put under support: Quantity	Put under support: Percentage of production	Acquired by CCC	Owned by CCC, year end
	Dollars per bushel		Million bushels	Percent	Million bushels	
1950	0.71	0.79	15.0	1.1	0.4	9.0
1951	.72	.82	13.1	1.0	.6	4.8
1952	.78	.79	21.7	1.8	13.5	13.2
1953	.80	.74	56.0	4.9	43.5	15.6
1954	.75	.71	74.9	5.3	59.7	40.5
1955	.61	.60	69.1	4.6	36.3	58.5
1956	.65	.69	36.1	3.1	17.7	26.7
1957	.61	.61	61.8	4.8	42.9	26.7
1958	.61	.58	84.6	6.0	48.3	42.4
1959	.50	.65	6.3	.8	.1	14.5
1960	.50	.60	19.7	1.7	.5	9.0
1961	.62	.64	20.6	2.0	8.4	14.3
1962	.62	.62	32.0	3.2	19.0	17.1
1963	.65	.62	38.9	4.0	31.9	28.3
1964	.65	.63	44.9	5.3	25.1	42.2
1965	.60	.62	43.9	4.7	6.8	50.6
1966	.60	.67	22.7	2.8	6.5	47.8
1967	.63	.66	37.2	4.7	19.5	45.2
1968	.63	.60	94.9	10.1	35.6	54.2
1969	.63	.58	152.4	15.7	62.0	104.3
1970	.63	.62	108.8	11.9	26.6	168.9
1971	.54	.60	81.9	9.3	.7	178.1
1972	.54	.72	31.8	4.6	0	104.9
1973	.54	1.18	19.4	1.6	0	23.9
1974	.54	1.53	3.9	.6	0	5.8
1975	.54	1.45	3.9	.6	0	0
1976 2/	.72	1.56	4.6	.8	0	0
1977	1.03	1.09	82.9	11.0	0	0
1978	1.03	1.20	25.1	4.2	1.3	2.7
1979	1.08	1.36	12.0	2.2	.2	2.7
1980	1.16	1.79	6.3	1.4	0	2.3
1981	1.24	1.89	9.7	1.9	.4	.7
1982	1.31	1.49	9.2	1.5	.7	.6
1983	1.36	1.67	3.6	.8	.1	1.5
1984	1.31	1.69	3.2	.7	.1	1.4
1985	1.31	1.25	5.4	1.0	.6	2.0
1986 3/	.99	1.10	7.7	2.0	NA	NA

NA = Not available.

1/ Reflects June through May crop year.

2/ Beginning in 1976, marketing year begins June 1.

3/ Preliminary. Based on World Agriculture Supply and Demand Estimates as of Jan. 15, 1987.

Sources: (18, 25, 26).

Table 16--Net budgetary expenditures for oats

Fiscal year	Loans made	Loans repaid 1/	Net lending	CCC & FOR storage 2/	Payments: Deficiency	Payments: Diversion	Payments: Disaster	Sales proceeds 1/	Miscellaneous expenditures or receipts 1/	Total net expenditures
					1,000 dollars					
1961	9,600	(5,000)	4,600	0	0	0	0	(3,400)	7,600	8,800
1962	10,800	(9,700)	1,100	3,600	0	0	0	(3,800)	1,100	2,000
1963	16,500	(7,700)	8,800	4,000	0	0	0	(4,100)	300	9,000
1964	22,300	(4,700)	17,600	5,000	0	0	0	(1,800)	2,100	22,900
1965	22,700	(9,300)	13,400	8,600	0	0	0	(7,200)	2,200	17,000
1966	23,000	(10,100)	12,900	9,100	0	0	0	(9,000)	4,700	17,700
1967	12,100	(13,400)	(1,300)	9,800	0	0	0	(11,600)	1,200	(1,900)
1968	21,100	(11,800)	9,300	8,000	0	0	0	(2,400)	300	15,200
1969	52,105	(12,681)	39,424	8,795	0	0	0	(239)	4,232	52,212
1970	87,448	(13,417)	74,031	17,260	0	0	0	(1,365)	13,796	103,722
1971	60,199	(28,711)	31,488	32,741	0	0	0	(8,315)	18,584	74,498
1972	39,951	(21,582)	18,369	39,148	0	0	0	(13,489)	11,570	55,598
1973	15,508	(58,747)	(43,239)	27,779	0	0	0	(46,697)	3,084	(59,073)
1974	5,323	(58,993)	(53,670)	16,579	0	0	0	(51,404)	1,806	(86,689)
1975	2,153	(3,467)	(1,314)	10,881	0	0	0	(33,787)	3,377	(20,843)
1976	2,144	(1,696)	448	6,523	0	0	0	(26,287)	3,568	(15,748)
1977	47,875	(2,887)	44,988	760	0	0	0	(4,264)	805	42,289
1978	46,378	(29,013)	17,365	7,409	0	0	0	(16)	247	25,005
1979	15,912	(33,295)	(17,383)	6,829	0	0	0	(58)	45	(10,567)
1980	11,231	(27,570)	(16,339)	3,374	0	0	0	(56)	295	(12,726)
1981	10,685	(29,083)	(18,398)	(1,874)	0	0	0	(61)	118	(20,215)
1982	9,575	(9,462)	113	863	0	0	148	(2,563)	(27)	(1,466)
1983	8,784	(3,638)	5,146	981	1,627	3,330	154	(1)	(29)	11,208
1984	5,324	(9,047)	(3,723)	693	3,328	4,193	39	(131)	(49)	4,350
1985	4,280	(3,388)	892	721	73	10	0	(166)	1	1,531
1986 3/	7,663	(685)	6,978	1,676	17,165	18	0	(181)	516	26,172

1/ Parentheses indicate receipts.
2/ Includes reseal storage payments for fiscal years 1962-75. CCC = Commodity Credit Corporation. FOR = Farmer-owned reserve.
3/ Excludes fiscal year 1986 certificate transactions.
Source: (19).

Table 17--Net Government expenditures for selected commodity programs

Fiscal Year	Corn	Sorghum	Barley	Oats	Wheat	Soybeans
			Million dollars			
1982	4,280.6	988.5	128.6	(1.5) 1/	2,230.0	169.2
1983	5,719.6	813.7	267.8	11.2	3,410.0	287.7
1984	(933.7)	75.5	89.2	4.4	2,522.1	(585.0)
1985	4,402.7	463.4	335.9	1.5	4,645.6	711.4
1986	10,523.8	1,184.9	471.0	26.2	3,390.5	1,597.4

1/ Parentheses indicate net receipts.
Source: (22).

Table 18--Government program participation rates for selected commodities

Crop year	Corn	Sorghum	Barley	Oats	Wheat
			Percent		
1982	29.1	47.0	46.0	13.8	48.3
1983	71.4	71.7	52.1	21.0	77.8
1984	53.7	42.0	44.4	13.8	60.2
1985	68.6	55.0	56.6	14.1	73.2
1986	84.7	75.2	72.7	36.6	83.6

Source: (20).

to increase. Because of greater program activity caused by lower prices, we estimated that Government outlays would increase slightly.

Supply, Use, Price, and Government Outlays

Production levels for the increased import scenario (actual production, imports, use, price, and Government outlays for 1983-86) declined gradually except in 1985 (table 19 and app. table 3). The production surge in 1985 was due to a yield response as acreage harvested was identical with 1984. Harvested acreage also gradually declined between 1982 and 1986. Production dropped to a record low level in 1986, a decline of 26 percent from 1985. This drop was correlated with declines in both harvested acreage and yield from the previous year. Weather was a major factor of the decline in production. However, a decrease price level was also a factor as price dropped by 26 percent between 1984 and 1985.

For the base scenario (average imports for 1978-82 and estimated production, use, price, and Government outlays), production exhibited a pattern similar to

that of the increased import scenario (table 19 and app. table 4). However, production was estimated to be slightly higher for most years under the base scenario, due, in part, to higher prices. Although domestic production was greater for most years under the base import scenario, it was not large enough to compensate for the drop in imports and the lower beginning stock levels. Thus, total annual supplies were larger with the increased import scenario than with the base scenario, ranging from 28-49 million bushels more per year, a 4-9 percent increase per year.

Crop year prices were 3-6 cents per bushel less in the increased import scenario than in the base import scenario, a decline of 2-4 percent per year. Changes in ending stocks were similar under either scenario although ending stocks were less under the base scenario.

The increased import scenario level, compared with the base level, was associated with larger supplies, lower prices, and increased use. Despite a price decline of 12 percent between 1985 and 1986, use also declined by 59 million bushels (11 percent) with the increased import scenario. Normally, use rises with a decrease in price. This relationship is explained by the lowering of feed grain loan rates as permitted by the 1985 Food Security Act, the implementation of generic certificates for the 1986 corn program, and the large drop in oats supplies. Compared with the base import scenario, the increased import scenario resulted in domestic feed use expanding by 9-26 million bushels per year, an increase of 2-6 percent. This rise in consumption was due to increased supplies and lower prices.

Price support loans made under both scenarios followed a similar pattern, moving inversely with price, with lowest placements being made in 1985, the year with the highest prices during the period (table 20). With larger supplies available under the increased import scenario, loan placements were larger in the last 2 years, but the same in 1984 and 1983 as for the base scenario.

Price support loans made for a given level of program participation and production are a function of the market price in relation to the loan rate and expected price movements for the season. The loan rate serves as a price floor for the eligible producer when prices are below the loan rate by an amount in excess of the cost of storing the commodity. The producers' best alternative is to place the grain under loan and monitor prices during the loan period with the objective of paying off the loan if market prices rise above the loan redemption cost. In situations where the market price is above the loan rate at harvest and price expectations are high (that is, price will rise during the season by more than carrying costs), placing grain under loan at harvest would be a rational decision.

Loans repaid, under both options, moved directly with price. With slightly higher prices for the base scenario in 1985, more loans were repaid under the base scenario than under the increased import scenario. In 1984, loans repaid exceeded loans made by about 60 percent, resulting in net receipts to the Commodity Credit Corporation (CCC). This situation occurred when prices increased by 12-14 percent from the previous year for either scenario.

Net Government outlays were greater under the increased import scenario compared with the base scenario (table 20). Net government outlays increased by $0.4 million to $4.5 million annually. Total net outlays for 1983-86 were

Table 19--Comparison of oats supply, use, and price with the increased and base import scenarios, by crop year 1/

Item	Units	1982	1983		1984		1985		1986 4/	
			Increased 2/	Base 3/	Increased	Base	Increased	Base	Increased	Base
Harvested acres	Mil.acres	10.3	9.1	9.1	8.2	8.3	8.2	8.3	6.9	7.0
Production	Mil. bu	593	477	477	474	481	521	528	385	391
Imports	do.	4	30	2	34	2	28	2	30	2
Supply	do.	749	727	699	689	645	729	680	598	550
Domestic use	do.	526	544	535	508	494	544	523	485	459
Total use	do.	529	546	537	509	495	546	523	487	459
Ending stocks	do.	220	181	162	180	150	184	157	111	91
Season average price	Dol./bu	1.49	1.67	1.70	1.69	1.75	1.25	1.30	1.10	1.15

1/ Data for the increased import scenario are based on World Agricultural Supply and Demand Estimates, Jan. 15, 1987.
2/ Represents actual oats imports, production, use, price, and Government outlays.
3/ Represents historical average oats imports, 1978-82, and estimated production, use, price, and Government outlays.
4/ Preliminary.

Table 20--Comparison of Commodity Credit Corporation net outlays for oats with the increased and base import scenarios, by fiscal year

Item	1983		1984		1985		1986		Total	
	Increased 1/	Base 2/	Increased	Base	Increased	Base	Increased 3/	Base	Increased	Base
	Million dollars									
Loans made	8.9	8.9	5.3	5.3	4.3	3.6	8.1	6.4	26.6	24.3
Loans repaid	3.8	3.8	9.0	9.0	3.4	3.6	1.2	1.8	17.4	18.4
Net loans	5.1	5.1	(3.7)	(3.7)4/	.9	0	6.9	4.6	9.2	5.9
CCC & FOR storage 5/	1.0	1.0	.7	.7	.7	.7	1.6	1.4	4.0	3.8
Deficiency	1.6	1.2	3.4	2.5	0	0	17.2	15.3	22.2	19.0
Diversion	3.3	3.3	4.2	4.2	0	0	0	0	7.5	7.5
CCC sales 5/	0	0	(.1)	(.1)	(.2)	(.2)	(1.2)	(1.3)	(1.5)	(1.6)
Total	11.0	10.6	4.5	3.6	1.4	.5	24.5	20.0	41.4	34.6

1/ Represents actual oats imports, production, use, price, and Government outlays.
2/ Represents historical average oats imports, 1978-82, and estimated production, use, price, and Government outlays.
3/ Preliminary.
4/ Parentheses represent net receipts.
5/ CCC = Commodity Credit Corporation. FOR = Farmer-owned reserve.

estimated to be about $7 million greater than the base import scenario, a 20-percent increase. Deficiency payments accounted for more than 60 percent of the difference in total net outlays for each scenario.

Government Program Objectives

The objectives of the Government oats program are to stabilize, support, and protect farm income and prices; to assist in maintaining balanced and adequate supplies of food, feed, and fiber; and to aid in the orderly marketing of farm commodities. The increased imports of 1983-86 did not significantly affect the stability of prices or income for oats producers. Increased imports of oats provided larger supplies, lowered prices slightly, and consequently enhanced total consumption of oats. Orderly marketing did not appear to be affected by increased imports of oats.

Stabilize, Support, and Protect Prices and Income

Increased imports of oats during 1983-86 had little effect on price or income stability, although income and prices were slightly higher under the base scenario (table 21). The coefficient of variation (a measure of variation that divides the standard deviation of the observation by its mean) for the season-average price was an estimated 20.1 percent for the base (historical average) import scenario and 20.9 percent with the increased (or actual) import scenario. The coefficient of variation for gross income, as measured by value of production and Government payments, was 21 percent under each scenario. Despite a lower level of gross income under the increased import scenario, deficiency payments were generally less with the base scenario.

Although income and prices are partially supported under each import scenario, the low level of program participation by producers minimizes these support effects. The prices in each scenario were substantially above the loan rate of $1.36 per bushel in 1983 and $1.31 in 1984. However, in 1985, prices for both alternatives dropped below the loan rate of $1.31 per bushel, while in 1986 they appear to have risen above the $0.99 loan rate by $0.10-$0.15 per bushel.

Assist in Maintaining Balanced and Adequate Supplies

Larger oats imports appear to have increased supply and use compared with the scenario of historical average import levels (table 22). Annual stocks-to-use ratios ranged from 30.3 percent to 19.8 percent in the base import scenario, compared with a range of 35.4 percent to 22.8 percent in the increased import scenario. Under the base (historical average) scenario, the 1986 stocks-to-use ratio was estimated to drop to a 37-year low of 19.8 percent, while the increased import scenario (actual) ratio was 22.8 percent, equal to the lowest since 1956. For either scenario, prices dropped from the previous year but were lowest with the increased import scenario. Regardless of the import scenario, the stocks-to-use ratio will be low because of a low supply caused by a short domestic crop, accompanied by quality problems and a tighter world trade market.

Table 21--Level and variability of season average prices and income with the increased and base import scenarios by crop years

Import scenario	1983	1984	1985	1986	Coefficient of variation 1/
	- - - -	Dollars per bushel		- - - -	Percent
Season average price:					
Increased (actual)	1.67	1.69	1.25	1.10	20.9
Base (historical average)	1.70	1.75	1.30	1.15	20.1
	- - - - -	Million dollars		- - - - -	
Gross income: 2/					
Increased (actual)	808	798	660	499	21.0
Base (historical average)	821	839	695	512	21.0

1/ A measure of variation that divides the standard deviation of the observation by its mean.

2/ Value of production and Government payments.

Table 22--Comparison of the stocks-to-use ratio with the increased and base import scenarios by crop year

Import scenario	1983	1984	1985	1986
		Percent		
Increased (actual)	33.2	35.4	33.7	22.8
Base (historical average)	30.2	30.3	30.0	19.8

Aid in Orderly Marketing

Increased imports did not appear to change producers' marketing patterns substantially because prices did not change significantly from the estimated levels under the base import scenario. Any storage disincentive caused by the slight price decline could be offset by an increase in price support loan activity.

ISSUES FOR FURTHER CONSIDERATION

Allegations have arisen within the U.S. oats industry that Government programs are beginning to create a supply-demand imbalance. Several points have been presented to support these allegations. First, large deficiency payments encourage producers to plant crops that are in surplus, such as corn, wheat, and barley, rather than crops in short supply such as oats. Second, since the 1982 crop year, the Government program for oats has assigned a common acreage base to oats and barley. More barley is apparently being planted instead of oats because barley has a better net return per acre due, in part, to a higher target price and a potentially larger deficiency payment. Finally, the Food Security Act of 1985 could reduce oats production through the Conservation Reserve Program, which is expected to generally remove the least productive land from harvested acreage. In many instances, this land is planted to U.S. oats production. Such conditions could lead to a continued decline in U.S. oats production. Given a constant consumption level, prices could be driven upward, thereby attracting continued large imports.

A recent ruling by the U.S. Department of Agriculture, which exempted the 1987 oats crop from the cross-compliance requirement, may alleviate the tight domestic oats supply situation. Also, provisions of the 1985 Food Security Act permit reduction of target prices and loan rates, which may reduce the economic incentives for oats imports.

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Appendix table 1--Acres harvested and set aside by selected States for specified commodities, 1976-86

State and commodity	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
						1,000 acres					
Iowa:											
Corn	13,870	13,575	13,510	13,700	13,940	14,330	13,670	9,070	13,295	13,850	12,000
Oats	1,400	1,350	1,050	1,000	1,000	960	950	750	740	760	630
Barley	0	0	0	0	0	0	0	0	0	0	0
Wheat	130	109	45	60	92	125	100	50	100	112	60
Soybeans	6,450	7,080	7,550	8,170	8,270	8,150	8,400	7,960	8,400	8,150	8,600
Sunflower	0	0	0	0	0	0	0	0	0	0	0
Flaxseed	0	0	0	0	0	0	0	0	0	0	0
Set aside	0	0	1,197	480	0	0	505	6,361	935	1,187	2,749
Total	21,850	22,114	23,352	23,410	23,302	23,565	23,625	24,191	23,470	24,059	24,039
Minnesota:											
Corn	7,090	6,830	6,940	6,810	7,170	7,580	7,230	5,020	7,140	7,050	5,700
Oats	2,060	2,380	1,830	1,490	1,450	1,430	1,530	1,350	1,200	1,100	850
Barley	860	1,080	1,050	1,040	815	1,030	880	820	950	1,075	1,000
Wheat	4,056	3,327	2,776	2,578	3,169	3,610	3,184	2,140	2,553	2,683	2,939
Soybeans	3,020	3,770	4,060	5,080	4,760	4,350	4,830	4,600	5,240	5,000	4,850
Sunflower	210	518	698	1,347	890	713	508	239	251	219	150
Flaxseed	195	220	142	153	125	104	110	75	45	50	0
Set aside	0	0	1,004	561	0	0	500	5,073	1,211	1,159	2,470
Total	17,491	18,125	18,500	19,059	18,379	18,817	18,772	19,317	18,590	18,696	17,959
N. Dakota:											
Corn	484	569	574	565	616	879	868	697	953	920	600
Oats	1,180	1,500	1,160	840	450	960	1,050	1,260	980	840	800
Barley	2,140	2,530	2,450	1,650	1,500	2,200	1,950	2,520	2,900	3,350	3,450
Wheat	11,655	9,254	9,585	9,600	9,620	11,690	10,300	7,205	8,660	8,870	9,130
Soybeans	147	175	173	206	200	230	415	530	740	490	490
Sunflower	600	1,320	1,910	3,378	2,235	2,628	3,348	2,344	2,817	2,030	1,276
Flaxseed	500	750	350	460	290	340	435	400	390	445	0
Set aside	0	0	484	1,477	0	0	1,426	6,260	3,673	3,853	3,962
Total	16,706	16,098	16,686	18,176	14,911	18,927	19,792	21,216	21,113	20,798	19,708
S. Dakota:											
Corn	2,600	2,900	3,280	3,370	3,310	3,325	3,330	2,400	3,280	3,420	2,700
Oats	1,420	2,450	2,060	1,888	1,500	1,640	2,130	1,650	1,550	1,420	1,050
Barley	350	640	565	520	460	590	545	550	595	720	830
Wheat	2,990	3,016	3,090	2,805	3,245	3,820	3,595	2,727	3,662	3,755	3,894
Soybeans	271	315	390	685	770	770	800	985	1,360	1,270	1,340
Sunflower	0	132	160	615	500	442	623	446	587	500	380
Flaxseed	230	330	175	260	265	173	190	105	103	89	0
Set aside	0	0	2,426	712	0	0	496	3,606	1,250	1,470	2,223
Total	7,861	9,783	12,146	10,855	10,050	10,760	11,709	12,469	12,387	12,644	12,417

--Continued

Appendix table 1--Acres harvested and set aside by selected States for specified commodities, 1976-86 -- continued

State and commodity	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
						1,000 acres					
Wisconsin:											
Corn	3,550	3,780	3,920	3,980	4,125	4,374	4,330	3,130	4,080	4,180	3,100
Oats	1,280	1,170	1,120	980	963	907	930	850	860	780	850
Barley	32	29	27	24	26	31	48	48	50	53	85
Wheat	93	75	45	54	111	121	122	128	177	157	148
Soybeans	152	192	215	295	330	375	440	395	450	300	320
Sunflower	0	0	0	0	0	0	0	0	0	0	0
Flaxseed	0	0	0	0	0	0	0	0	0	0	0
Set aside	0	0	336	195	0	0	103	1,510	151	224	666
Total	5,107	5,246	5,663	5,528	5,555	5,808	5,973	6,061	5,768	5,694	5,169
Other:											
Corn	54,980	52,525	52,330	51,970	53,110	52,383	51,543	38,980	50,708	52,865	44,851
Oats	4,606	4,602	3,906	3,481	3,289	3,518	3,668	3,212	2,833	3,249	2,807
Barley	4,915	5,285	5,156	4,288	4,474	5,307	5,590	5,793	6,736	6,355	6,620
Wheat	51,847	50,680	40,954	47,357	54,747	61,647	60,636	49,140	51,776	49,157	44,312
Soybeans	39,318	46,080	51,275	56,130	53,526	52,493	54,557	48,055	49,923	46,374	43,913
Sunflower	0	235	30	70	58	28	245	34	37	95	38
Flaxseed	60	14	20	5	3	0	0	0	0	0	0
Set aside	0	0	11,255	8,378	0	0	5,392	40,876	15,784	16,728	25,321
Total	155,726	159,421	153,671	163,301	169,207	175,376	176,239	145,214	162,013	158,095	142,541
United States:											
Corn	82,574	80,179	80,554	80,395	82,271	82,871	80,971	59,297	79,456	82,285	68,951
Oats	11,946	13,452	11,126	9,679	8,652	9,415	10,258	9,072	8,163	8,149	6,987
Barley	8,297	9,564	9,248	7,522	7,275	9,158	9,013	9,731	11,231	11,553	11,985
Wheat	70,771	66,461	56,495	62,454	70,984	81,013	77,937	61,390	66,928	64,734	60,483
Soybeans	49,358	57,612	63,663	70,566	67,856	66,368	69,442	62,525	66,113	61,584	59,513
Sunflower	810	2,205	2,798	5,410	3,683	3,811	4,724	3,063	3,692	2,844	1,844
Flaxseed	985	1,314	687	878	683	617	735	580	538	584	0
Set aside	0	0	16,702	11,803	0	0	8,423	63,686	23,005	24,981	37,390
Total	224,741	230,787	224,571	236,904	241,404	253,253	253,080	205,658	236,121	231,733	209,763

Appendix table 2--Gross returns, variable expenses, and net returns for selected crops, 1975-85

Year	Oats	Corn	Barley	Wheat	Soybeans
	Dollars per planted acre				
Gross returns:					
1975	90.83	217.50	101.06	104.39	139.93
1976	91.34	187.11	96.53	77.46	172.46
1977	95.12	180.12	73.91	67.88	178.46
1978	90.17	225.94	91.28	91.84	195.43
1979	87.70	275.97	111.65	124.86	201.32
1980	101.52	279.46	118.69	116.48	199.71
1981	121.37	260.17	124.80	118.96	179.48
1982	103.77	243.63	117.65	114.69	160.64
1983	94.60	252.90	120.31	132.97	204.46
1984	104.74	273.23	119.27	118.99	166.72
1985	70.97	260.16	87.56	100.66	162.72
Variable expenses:					
1975	22.31	79.11	31.14	30.50	36.41
1976	19.79	75.06	28.87	28.60	32.90
1977	22.78	77.08	26.68	26.34	38.97
1978	26.62	84.70	36.66	27.69	42.20
1979	31.21	96.81	43.97	34.33	47.71
1980	38.70	115.99	50.94	43.88	53.32
1981	42.82	131.22	56.17	52.29	59.53
1982	45.61	129.74	59.55	52.88	58.92
1983	42.88	126.27	56.73	54.39	58.71
1984	45.44	129.59	55.74	52.76	58.18
1985	41.99	128.10	52.00	49.80	54.10
Net returns:					
1975	68.52	138.39	69.92	73.89	103.41
1976	71.55	112.05	67.66	48.86	139.49
1977	72.34	103.04	47.23	41.54	139.49
1978	63.55	141.24	54.62	64.15	153.23
1979	56.48	179.16	67.68	90.53	153.61
1980	62.82	163.47	67.75	72.60	146.39
1981	78.55	128.95	68.63	66.67	119.95
1982	58.16	113.89	58.10	61.81	101.72
1983	51.72	126.63	63.58	78.58	145.75
1984	59.30	143.64	63.54	66.23	108.54
1985	28.98	132.06	35.56	50.86	108.62

Appendix table 3--Oats supply, utilization, loan activity, and Government outlays with the increased import scenario, specified years

Item	Unit	Crop years				
		1982	1983	1984	1985	1986
Farm Program:						
Base	Mil. ac	10.4	10.1	9.8	9.4	9.5
Adjusted base	do.	10.4	10.1	9.8	9.4	9.4
Acreage red. prog	Percent	10.0	10.0	10.0	10.0	17.5
Paid land diver.	do.	0	10.0	0	0	0
Payment-in-kind	do.	0	0	0	0	2.5
Acreage:		14.0	12.6	12.5	13.4	15.5
Acreage red. prog	Mil. ac	0	.1	.1	.1	.6
Cash land diver.	do.	0	0	0	0	0
Payment-in-kind	do.	0	0	0	0	.1
Long-term ACR 1/	do.	0	0	0	0	.1
Planted	do.	14.0	12.3	12.4	13.3	14.7
Harvested	do.	10.3	9.1	8.2	8.2	6.9
Harv. by part.	do.	1.0	1.0	.7	.6	2.8
Participation	Percent	14	21	14	14	37
Yield:						
Harvested acres	Bu./ac	57.8	52.6	58.0	63.7	56.0
Program yield	do.	45.0	47.0	53.0	49.0	49.0
Supply:						
Begin stocks	Mil. bu	152	220	181	180	184
Production	do.	593	477	474	521	385
Imports	do.	4	30	34	28	30
Total	do.	749	727	689	729	598
Use:						
Feed & resid.	do.	441	466	434	460	400
Food, seed, ind.	do.	85	78	74	83	85
Total domestic	do.	526	544	508	543	485
Exports	do.	3	2	1	2	2
Total	do.	529	546	509	545	487
Ending stocks:						
Farmer-owned res.	do.	5	4	3	1	2
CCC 2/	do.	1	1	1	2	3
Free	do.	214	176	176	181	106
Total	do.	220	181	180	184	111
9-month loans	do.	0	4	2	5	5
Special loans	do.	0	0	0	2	0
Stocks/use	Ratio	.416	.332	.354	.337	.228
Oats/corn price	do.	.556	.514	.645	.532	.733
Prices:						
Target	Dol./bu	1.50	1.60	1.60	1.60	1.60
Loan level	do.	1.31	1.36	1.31	1.31	.99
Season avg. price	do.	1.49	1.67	1.69	1.25	1.10
Def. pay rate	do.	0	.11	0	.29	.37
Findley pay. rate	do.	0	0	0	0	.13
Diver. pay. rate	do.	0	.75	0	0	.36
Income:						
Value of prod.	Mil.dol	884	795	798	651	423
Deficiency	do.	0	5	0	8	64
Diversion	do.	0	8	0	0	3
Disaster	do.	0	0	0	0	0
Res. storage	do.	1	0	0	1	0
Long-term ACR 1/	do.	0	0	0	0	9
Total	do.	885	808	798	660	499

Continued--

Appendix table 3--Oats supply, utilization, loan activity, and Government outlays with the increased import scenario, specified years--Continued

Item	Unit	Fiscal Year 1983	1984	1985	1986
Loan activity:					
Carryin	Mil. bu.	5.8	8.9	5.7	6.0
Loans made	do.	6.7	4.3	3.4	7.6
Loans repaid	do.	2.9	6.9	2.8	1.3
Loans red. PIK 3/	do.	0	0	0	.7
Forfeitures	do.	.6	.6	.3	1.7
Carryout	do.	9.0	5.7	6.0	9.9
FOR 4/	do.	5.3	3.1	3.2	2.8
CCC 2/	do.	1.3	1.5	1.8	3.2
Reserve release	do.	0	2.2	.4	1.2
CCC release 5/	do.	.4	.4	0	.3
Outlays:					
Loans made	Mil. dol	8.9	5.3	4.3	8.1
Loans repaid	do.	3.8	9.0	3.4	1.2
Net loans	do.	5.1	6/(3.7)	.9	6.9
CCC storage 3/	do.	.2	.4	.5	1.0
Reserve storage	do.	.8	.3	.2	.6
Deficiency	do.	1.6	3.4	0	17.2
Diversion	do.	3.3	4.2	0	0
CCC sales 7/	do.	0	(.1)	(.2)	(1.2)
Total	do.	11.0	4.5	1.4	24.5

1/ ACR = Acreage Conservation Reserve.
2/ CCC = Commodity Credit Corporation
3/ PIK = Payment-in-kind
4/ FOR = Farmer-owned reserve
5/ Assumes no subsidized export sales.
6/ Parentheses indicate receipts.
7/ CCC sales valued at season average price.

Appendix table 4--Oats supply, utilization, loan activity, and Government outlays with the base import scenario, specified years

Item	Unit	Crop years				
		1982	1983	1984	1985	1986
Farm Program:						
Base	Mil. ac	10.4	10.1	9.8	9.4	9.5
Adjusted base	do.	10.4	10.1	9.8	9.4	9.4
Acreage red. prog	Percent	10.0	10.0	10.0	10.0	17.5
Cash land diver.	do.	0	10.0	0	0	0
Payment-in-kind	do.	0	0	0	0	2.5
Acreage:		14.0	12.6	12.6	13.6	15.6
Acreage red. prog	Mil. ac	0	.1	.1	.1	.5
Cash land diver.	do.	0	.2	0	0	.0
Payment-in-kind	do.	0	0	0	0	.1
Long-term ACR 1/	do.	0	0	0	0	.1
Planted	do.	14.0	12.3	12.5	13.5	14.9
Harvested	do.	10.3	9.1	8.3	8.3	7.0
Harv. by part.	do.	1.0	1.0	.7	.5	2.5
Participation	Percent	14.0	21.0	14.0	12.0	33.0
Yield:						
Harvested acres	Bu./ac.	57.8	52.6	58.0	63.6	55.9
Program yield	do.	45.0	47.0	53.0	49.0	49.0
Supply:						
Begin stocks	Mil. bu	152	220	162	150	157
Production	do.	593	477	481	528	391
Imports	do.	4	2	2	2	2
Total	do.	749	699	645	680	550
Use:						
Feed & resid.	do.	441	457	420	440	374
Food, seed, ind.	do.	85	78	74	83	85
Total domestic	do.	526	535	494	523	459
Exports	do.	3	2	1	0	0
Total	do.	529	537	495	523	459
Ending stocks:	do.					
Farmer-owned res.	do.	5	5	4	3	2
CCC 2/	do.	1	1	1	2	1
Free	do.	214	156	145	152	88
Total	do.	220	162	150	157	91
9-month loans	do.	0	4	3	2	5
Special loans	do.	0	0	0	2	0
Stocks/use	Ratio	.416	.302	.303	.300	.198
Oats/corn price	do.	.556	.523	.668	.553	.767
Prices:						
Target	Dol./bu	1.50	1.60	1.60	1.60	1.60
Loan level	do.	1.31	1.36	1.31	1.31	0.99
Season avg. price	do.	1.49	1.70	1.75	1.30	1.15
Def. pay. rate	do.	0	.08	0	.29	.37
Findley pay. rate	do.	0	0	0	0	.08
Diver. pay. rate	do.	0	.75	0	0	.36
Income:						
Value of prod.	Mil.dol	884	809	839	686	450
Deficiency	do.		4	0	8	51
Diversion	do.		8	0	0	2
Disaster	do.			0	0	0
Res. storage	do.	1		0	1	0
Long-term ACR 1/	do.					9
Total	do.	885	821	839	695	512

Continued--

Appendix table 4--Oats supply, utilization, loan activity, and Government outlays with the base scenario, specified years--Continued

Item	Unit	Fiscal years			
		1983	1984	1985	1986
Loan activity:					
Carryin	Mil. bu	5.8	8.9	5.7	5.3
Loans made	do.	6.7	4.3	2.8	6.1
Loans repaid	do.	2.9	6.9	2.9	1.7
Loans red. PIK 3/	do.	0	0	0	.7
Forfeitures	do.	.6	.6	.3	1.4
Carryout	do.	9.0	5.7	5.3	7.6
FOR 4/	do.	5.3	3.1	3.2	2.6
CCC 2/	do.	1.3	1.5	1.8	2.9
Reserve release	do.	0	2.2	.4	1.2
CCC release 5/	do.	.4	.4	0	.3
Outlays:					
Loans made	Mil.dol	8.9	5.3	3.6	6.4
Loans repaid	do.	3.8	9.0	3.6	1.8
Net loans	do.	5.1	6/(3.7)	0	4.6
CCC storage 2/	do.	.2	.4	.5	.9
Reserve storage	do.	.8	.3	.2	.5
Deficiency	do.	1.2	2.5	0	15.3
Diversion	do.	3.3	4.2	0	0
CCC sales 7/	do.	0	(.1)	(.2)	(1.3)
Total	do.	10.6	3.6	.5	20.0

1/ ACR = Acreage Conservation Reserve.
2/ CCC = Commodity Credit Corporation.
3/ PIK = Payment-in-kind.
4/ FOR = Farmer-owned reserve.
5/ Assumes no subsidized export sales.
6/ Parentheses indicate receipts.
7/ CCC sales valued at season average price.

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